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EDITED BY  
GEORGE MELVILLE BOLLING  
*Ohio State University*

HANS KURATH  
*Ohio State University*

SAMUEL MOORE  
*University of Michigan*

EDWARD SAPIR  
*University of Chicago*

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## CLASSIFICATION OF AMERICAN INDIAN LANGUAGES

FRANZ BOAS

COLUMBIA UNIVERSITY

[The author points out cases in which contiguous languages, though different in structure and vocabulary, exhibit in common striking morphologic peculiarities that must have spread by borrowing from language to language. A simple genealogical classification cannot therefore adequately represent the development, but 'hybridization' must also be taken into account.]

In a paper published in 1920<sup>1</sup> I discussed the problem of the interrelation of American Indian languages. I pointed out that morphological types are distributed over large areas and that in these morphological groups differences representing the character of the vocabulary occur which make it difficult to assume that the languages, as now spoken, are derived from the same 'Ursprache'. I pointed out that in the small linguistic units of early times, the conditions of mixture were quite different from those found in languages spoken over large areas and by many individuals. A further consideration of the problem led to the conclusion that an answer to the fundamental question must be sought through an investigation of mutual influences and the extent to which they may modify languages; particularly, in how far one linguistic type may influence the morphology of another.

I believe everybody will agree that words may be borrowed and may modify the vocabulary of a language; perhaps also that the phonetic character of one language may influence that of its neighbors. I have given a few general instances in the paper mentioned before, and today I will add one example that seems to be particularly instructive. The Nez Percé, an eastern Sahaptin language, has rigid rules of vocalic harmony according to which vowels may be divided into two classes: *a* and *o* as one group; all the others as a second group. In the system of consonants occurs an *s* with raised margin of the tongue and the dental *t* series. Another characteristic sound is a voiced affricative, something like *dl*. During the 18th century a large group of the Sahap-

<sup>1</sup> *American Anthropologist* 22. 367-76.

tin penetrated into the State of Washington and some of them crossed the Cascade Mountains where they intermarried with the Salishan tribes resident there. The phonetic elements of the present dialect of this region are practically identical with those of the neighboring Salish tribes. The vocalic system is the same. There is no trace of vocalic harmony.

We recognize that a comparison of vocabularies of languages, the history of which is unknown, offers serious difficulties, and that the changes brought about by the shifting of sounds, by semantic modification, and by new formations, may be so numerous that identification becomes possible in exceptional cases only. Languages behave differently in these respects. Some, like the Eskimo, are so conservative that even now the differentiation between Alaskan and Greenland dialects is slight, although the two groups have been separated for more than a thousand years. The more striking is the divergence of the vocabulary of the related Aleutian. Nahuatl of Mexico has changed in so far as the higher literary style has disappeared and as old ideas have vanished and new ones have been introduced with concomitant change of vocabulary. The syntactic subordination and coördination of phrases have yielded to Spanish types. In all other respects the modern language has not changed. It seems even possible to recognize the dialectic differences of various areas which may be reconstructed from the grammars of the early 16th century. On the other hand, the Salishan languages of British Columbia and Washington illustrate a great instability in morphology and lexicography. We can only guess what the causes of the difference in behavior of different languages may be. The often expressed opinion that 'primitive languages' undergo very rapid changes is true to a very limited extent only.

There is no doubt that in many cases languages sprung from the same source and changing by internal forces only may have become so different that without historical data their relation cannot be established.

Nevertheless the question remains whether hybridization of languages, not only in phonetics and vocabulary, but also in morphology, may have occurred.

So far as I know the actual process of a transfer of grammatical categories from one language to another has never been observed, although minor changes, like the adoption of a form here and there, and syntactic influences are known to occur. The syntactic modification of American languages under Spanish influence, offers a good example of the latter type of change. The proof of the diffusion of morpho-

logical forms can be only indirect, based on facts of distribution and partial conformity by the side of fundamental differences.

In some cases of farreaching similarity of morphology, like that of Athapascan and Tlingit, we may feel that an assimilation of the structure of an older language by Athapascan is quite unlikely; and that, if no safer correspondence of vocabulary can be found than has been presented up to this time, we may suspect that an older vocabulary has been taken over by the invading Athapascan. Until definite phonetic shifts can be proven by a sufficient number of parallel forms, and until an exhaustive comparison of vocabularies has been made, we have to admit that a vast array of stems in the two languages cannot be identified, including pronouns, numerals, and most other stems; and we must leave open the question whether all, or most of the lexicographic material can be derived from a common source.

More difficult are those cases in which a partial agreement in morphological traits exists between neighboring and apparently distinct languages, and disagreement in the dialects of obviously related languages. I may give an example of this kind. I mentioned before the vocalic harmony of the Nez Percé. So far as I am aware only the Coos of Oregon exhibit a similar, consistent phenomenon. It is not known whether the neighboring Molala and Kalapuya have it. Other Sahaptin dialects do not show it.

Chinook possesses pronominal gender. There are not only pronouns of three genders,—or more strictly speaking five nominal categories, for dual and plural belong to the same system,—but every noun has prefixed one of the five pronouns. None of the languages of the adjoining groups have sex gender except a number of dialects located in close proximity to the Chinook, particularly all the dialects of Salish tribes that live along the coast northward and southward, and the Quilleute. In the Salish dialects of the interior, gender does not occur. If the Quilleute should prove to be related to Wakashan, to which it shows morphological resemblances, it will be the only language of this group which has gender. In all these dialects gender is confined to the pronoun.

Chinook expresses diminutives by consonantic changes. Voiced and unvoiced consonants become glottalized and *š* changes to *s*. Velar fricatives become midpalatal fricatives. The neighboring Sahaptin groups, which differ fundamentally from Chinook, use consonantic changes for the same purpose. Some of the changes are the same as in Chinook; *š* changes to *s*, velars to midpalatals, and besides these a change from *n* to *l* occurs.



We find sporadic, fossilized use of the same process in the Salish dialect spoken just north of the Chinook area, in Coos on the coast of Oregon,<sup>2</sup> and as a living feature in Wiyot in Northern California. Geographical contiguity for the last example cannot be established.

It will be noticed that while gender exists in a coastwise direction north and south, the formation of the diminutive by consonantic changes occurs in a territory extending eastward.

Another curious resemblance may be traced between Quilleute, Kwakiutl, and Tsimshian, which are spoken in an area extending from the State of Washington to the Alaskan boundary. In these three languages the pronominal representation of the noun (or article) is treated differently for proper names and for common nouns. These form throughout two distinct classes. In Quilleute and Kwakiutl a further correspondence is found in so far as the article used with proper names is also used for indefinite, that is unknown objects. For instance, 'I look for a whale', indefinite; 'I found a whale', definite.

Many American languages draw a clear distinction between possession by the subject and possession by another person, like the Latin *suus* and *ejus*. A small group, including the Eskimo, Algonquian, and Kutenai, express these relations by special verbal forms, the so-called obviative of the missionaries who wrote on Algonquian, the fourth person of Thalbitzer. The phenomenon is most pronounced in Kutenai, for even in the case of the simple transitive verb with third person subject and nominal object the presence of the two third persons is indicated by the obviative suffix following the nominal object. It is interesting to note that the western Sahaptin languages, which as a whole group adjoin the Kutenai, make the same distinction for the subject of the sentence for sentences containing only one third person and those in which the sentence contains two third persons. In both Kutenai and western Sahaptin there is a differentiation between the forms in a sentence like, 'the man saw me', and 'the man saw the woman'. In Kutenai the difference is found in the object, in Sahaptin in the subject. In some of the Sahaptin dialects this trait is found only in the pronoun, not in the noun. The general usage, in the group of languages just discussed, is alike notwithstanding the difference of devices used.

Another interesting feature may be observed in the languages of the North Pacific Coast. Demonstrative pronouns are often very elaborate. They not only distinguish between the person near the

<sup>2</sup> *Handbook of American Languages* 2. 383.

speaker, near the person addressed, and near the person spoken of, but more exact locations are often added. The Tlingit of Alaska differentiate between what is near him but nearer than you, and what is near him but farther than you; or positions in front, behind, above, or below the speaker may be designated. Among the tribes extending from Columbia River northward to Alaska—the same group which differentiates between proper names and common nouns—a different demonstrative concept is introduced, namely that of visibility and invisibility. The Chinook has demonstratives designating, for instance, 'near the speaker, visible'. The same occurs in Quilleute and Coast Salish, but not in the Salish dialects of the interior. It is a characteristic feature of Kwakiutl and is highly developed in Tsimshian. I do not know of its occurrence in any other group of neighboring languages.

Still another feature characteristic of part of the same group is the separation of pronominal subject and object in transitive verbs. The verb unaccompanied by what we should call an adverb, takes a suffix consisting of pronominal subject and object combined. When a qualifying adverb accompanies the verb, the subject is attached to this qualifier which takes the form of an intransitive verb, while the object remains attached to the primary verb. 'I did not see him' would be expressed by 'not-I see-him'. This tendency occurs in exactly the same form in Quilleute, Coast Salish, and Wakashan. In Tsimshian it is less fully developed, in so far as in subjunctive forms the pronominal subject precedes the verb and is phonetically united with the preceding adverb. The analogy, however, is not strict.

Another interesting comparison may be made between Chukchee and Eskimo. In regard to the general form, these two languages are quite distinct. Chukchee employs terminal reduplication, prefixes, suffixes, and vocalic harmony. Besides this there are rigid rules regarding initial consonantic clusters which bring about important modifications of stem form. Eskimo has nothing of the kind. There is no reduplication, no prefixes whatever, no trace of vocalic harmony. Whatever changes occur in stem are due to the influence of suffixes. On the other hand, a number of categories occur which are common to these two neighboring languages. The plural forms are alike; both Eskimo and Chukchee form the plural by a suffix *t*. The nominal subject in Eskimo is treated differently in the case of transitive and intransitive verbs. The subject of the transitive verb has what might be called a relational form, common to both the genitive and the transitive subject. The subject of the intransitive verb has the same form as the object of

the transitive verb. This feature occurs also in other languages, as in Sahaptin, and it is found in the pronominal forms of many other languages. But in the circumpolar area only the Chukchee and Eskimo have this differentiation of the nominal forms. The processes by means of which this differentiation is made in Eskimo and Chukchee are quite distinct, for the object in Chukchee is formed by terminal reduplication; in Eskimo the subject is differentiated by a suffix. Furthermore we find in both languages a considerable number of postpositions which express local relationships, such as 'at', 'towards', 'from', and so on. The analogy in the modal development of the verb is also quite striking. A considerable number of participial forms occur which may take personal pronouns and the group of concepts expressed by the modalities shows marked similarity.

Considering these data as a whole, we may say that in a considerable number of native languages of the North Pacific Coast we find, notwithstanding fundamental differences in structure and vocabulary, similarities in particular grammatical features distributed in such a way that neighboring languages show striking similarities. The areas in which similar features are found do not coincide in regard to the various traits compared.

It seems to me almost impossible to explain this phenomenon without assuming the diffusion of grammatical processes over contiguous areas.

Stress must be laid here upon the contiguity of distribution, because comparative grammar shows clearly that similar features may develop independently in different parts of the world. Sex categories, phonetic similarity between the Northwest Coast and Chile, the application of reduplication, and many other traits appear in such distribution that historical connection is excluded. On the other hand the distribution of the same particular grouping of concepts, or of the same methods of expression over contiguous areas can hardly be explained on the basis of independent origin.

So far as I can see an attempt to bring together the different languages of contiguous areas which have similar processes, is not feasible on account of the fundamental differences in conceptualization, in grammatical processes, and in vocabulary.

The phenomena here discussed lead to a result analogous to that reached by Lepsius in his study of African languages. He concluded that a large number of mixed languages occur in Africa. His conclusions are largely corroborated by more recent investigations, particularly of the Sudanese languages. It is also parallel to the results ob-



tained by von der Gabelentz in his study of the languages of New Guinea and Melanesia, and his inferences are substantiated by the recent investigations of Dempwolff. The problem has been well formulated by Professor Prokosch who demands a detailed comparison of the European languages with all their neighbors no matter to what linguistic stock they may belong. It also agrees with the view of Schuchardt who points out that there is a gradation beginning with a slight amount of borrowing and extending through more intensive intermingling, to a complete change of language. The question in which we are interested is not that of the theoretical definition of relation of languages as defined by Meillet and Ween, but merely a question of historical development.

If the view expressed here is correct, then it is not possible to group American languages rigidly in a genealogical scheme in which each linguistic family is shown to have developed to modern forms, but we have to recognize that many of the languages have multiple roots.

# HITTITE DENOMINATIVES IN *a(i)* AND ONE SOURCE OF INDO-EUROPEAN NOUNS IN LONG *ā*

E. H. STURTEVANT

YALE UNIVERSITY

[That Hittite denominatives in *a(i)* correspond to IE verbs in *-āyō* is supported by etymologies (*ἔφαω*, *ἀρφαομαι*, *mēlārī*, *parāre*) and by agreement with Latin in method of formation (cf. *aestuāre* but *piscārī*) from *u-* and *i-*stems. In Hittite no *ā*-stems have been recognized, the suffix is therefore not a conglomerate. This adds new interest to the fact that in IE (esp. Rig Veda and Homer) many *-āyō* verbs have no corresponding *ā*-stem. Probably the IE *ā*-stems are largely 'backformations' patterned on a number of *ā*-stems that were (cf. Hirt) simply dissyllabic bases.]

In his commentary on the Madduwattaš text (81-100)<sup>1</sup> Götze has collected and discussed the Hittite verbs of the *mi*-conjugation whose stem ends in *a(i)*. He lists (85) the personal endings as they appear in combination with the stem-final, as follows:<sup>2</sup>

Active	Present	Preterit	Imperative
Sing. 1	ami	anun	
2	aši, aiši	aiš	ai
3	aizzi	ait	aitu
Plur. 1	aweni	awen	
2	atteni, aitteni	atten	aitten, atten
3	anzi	air	andu
Medio-Passive			
Sing. 1	ahhari		
2			ahhut
3	aittari, attari	aittat, attat	aittaru
Plur. 3	antari	antati	

<sup>1</sup>Götze, *Madduwattaš (Hethitische Texte in Umschrift, mit Übersetzung und Erläuterungen)*, herausgegeben von F. Sommer, Heft 3), Leipzig, 1928. Götze cites the literature so fully that many citations can be omitted here.

<sup>2</sup>Here and elsewhere I omit the marks of long quantity which Götze employs. The usual assumption that double writing of a vowel may indicate length would strengthen the argument presented in this paper; but I am convinced that such an assumption cannot be carried through consistently.

Pages 85–95 contain citations of the actual forms upon which the above table is based. On page 96 occurs this remarkable passage:

“Soweit der Befund. Zur Erklärung scheint mir die Beobachtung fruchtbar, dass das ‘eingeschobene’ *i* dort fehlt wo wir im indogermanischen thematischen Verbum den Themavokal als *o* erwarten. Umgekehrt erscheint *i* regelmässig oder zuweilen, wo wir den Themavokal als *e* erwarten.”

Götze thinks that *hatraizzi* ‘he writes’ came from an earlier *\*hatrayizzi* and that from *\*hatrayezi*, while *hatranzi* ‘they write’ came from *\*hatrayanzi* by loss of *y* between like vowels and contraction. He might have cited in support of the loss of *y* between like vowels the nominative plural of *i*-stems in *eš* from Pre-Indo-European *\*ejes* (e.g. nom. pl. *šarkanteš* beside nom. sing. *šarkantiš*, the name of some domestic animal). There can be no doubt that *hatraizzi* came from *\*hatrayezi*, although the intermediate stage assumed by Götze is uncertain, and although we do not know whether *hatraizzi* was pronounced in three syllables or in four.

It is equally clear, as Götze points out, that many of these verbs are denominatives. On pages 81–3 he lists a number of derivatives of *u*-stem nouns and adjectives, of which these are perfectly clear: *huišwa(i)*- ‘be alive’: *huišuš* ‘alive’, *aššuwa(i)*- ‘be good’: *aššuš* ‘good’, *parkuwa(i)*- ‘be pure’: *parkuš* ‘pure’, *dankuwa(i)*- ‘be dark, impure’: *dankuš* ‘dark, impure’, *daššuwa(i)*- ‘be strong’: *daššuš* ‘strong’, *genzuwa(i)*- ‘show friendship’: *genzu* ‘friendly disposition’, *kutruwa(i)*- ‘be a witness’: *kutruš* ‘witness’, *halluwa(i)*- ‘quarrel’: *hallu-* ‘a quarrel’, *luluwa(i)*- ‘prosper’: *lulu* ‘prosperity’, *šaruwa(i)*- ‘plunder’: *šaru* ‘booty’. On page 99 Götze cites also *iwaruwa(i)*- ‘give’: *iwaru* ‘gift’. From other types of nominal stem he lists (99) *arša(i)*- ‘plant’ from *aršiš* ‘a plant’ <? or ‘a field of plants’>, *irha(i)*- ‘finish’ from *irhuš* (acc. pl.) ‘boundaries’, *takšula(i)*- ‘make peace’ from *takšul* ‘friend’, *warra(i)*- ‘help’ from *warriš* ‘helpful’, and *gangata(i)*- from *gangati* (meaning uncertain). I would add *happara(i)*- ‘sell’ from *happar* ‘business transaction’ (see below 11). Furthermore, *tarkumma(i)*- ‘interpret, explain’ seems to reflect Accadian *TARGUMĀNU* ‘interpreter’,<sup>3</sup> and, if so, it implies a Hittite noun *\*tarkummaš*, or the like.

If the Hittite denominatives in *a(i)* from earlier *ayo:aye* are to be connected with anything in Indo-European, they must go with the denominatives in *ājo:āje* (e.g. Sanskrit *prtanāyati* ‘he fights’: *prtanā*

<sup>3</sup> See Friedrich, *Zeitschrift für Assyriologie*, Neue Folge 3.183 (1927).

'battle', Greek τιμάω 'I honor': τιμή 'honor', Latin *ceno* 'dine': *cena* 'dinner'). The only other IE type that could come into consideration at all would be the verbs in *eǵo* (e.g. Skt. *amitrāyati* 'is hostile': *amitrās* 'enemy', Gk. ἀριθμέω 'count': ἀριθμός 'number', Lat. *claudio* 'limp': *claudus* 'lame'); but IE *e* regularly appears in Hittite as *e* (often written *i*), and a change of *e* to *a* before *i* is disproved by the nominative plural of the *i*-stems already cited (PIE *ejes* becomes Hittite *eš*).

The identification of the Hittite denominatives in *a(i)* with IE denominatives in *āǵo* is supported by several etymologies.

Hittite *aššuš* 'good' has been plausibly identified with Gk. *éus* 'good'.<sup>4</sup> The difference in the initial vowel may indicate a variation in ablaut; but there are still a number of unexplained instances of initial *a* for *e* (e.g. *anta(n)* 'within'; cf. Sturtevant, *LANGUAGE* 3. 168). Now, if *aššuš* = *éus*, the derivative verb should appear in Gk. as *εἰάω* < \**ēsāw* and the original digamma of *éāw* is actually recorded by the lexicographers (Hesychius and the *Etymologicum Magnum* report Syracusan *ἔβασον* *ἔασον*, and Hesychius has *εὔα* . . . *ἔα*). The semantic development from 'be good to, favor' to 'permit' is particularly easy. The initial vowel of *éāw* is difficult, but not inexplicable. Phonetic laws would yield \**éus*, \**εἰάω*, and \**ἦφαον*; but a system so complicated and so unparalleled could scarcely survive. In particular, the alternation of *ei* (i.e. *ē*) with *η* possibly occurred in no other verb, except *εἰμι*: *ἦν*; and so one might expect the augmentless \**εἰφαον* to be preferred to \**ἦφαον*. At the same time the adjective \**éus* tended to change the present to \**εἰάω*, and both processes were favored by verbs which had lost initial *σ* or *τ* before *ε*, e.g. *ἔχω*: *εἶχον*. Precisely this verb seems to have been particularly influential, since it accounts for the loss of rough breathing in *éus*, *έω*, and *έων*.

The identity of *aruwa(i)*- 'bow, make obeisance, worship' with Gk. *ἀράομαι* 'pray' seems quite evident, since Attic *ἀρά* and Ionic *ἀρή* 'prayer' are shown by Arcadian *κάταρφος* to have lost digamma.<sup>5</sup>

Götze (*Madd.* 84 and fn. 17) suggests that Hittite *mita(i)*- may mean 'befestigen', and he points out that it must at any rate be similar in meaning to *tarma(i)*-, for which he suggests the same translation. Since

<sup>4</sup> See Friedrich, *Indogermanische Forschungen* 41. 371 (1923).

<sup>5</sup> Persson's (*Studien zur Lehre von der Wurzelweiterung und Wurzelvariation* 243) connection of *ἀρά* with Lat. *oro* 'plead' and Skt. *āryati* 'he praises' is semantically improbable, and the Lat. word can scarcely be separated from *os* 'mouth' (see Buck, *Grammar of Oscan and Umbrian* 21). Our Hittite etymology is not affected in any case.

the latter word in the Yale tablet<sup>6</sup> denotes something that is done to a road with pegs, I translate it 'mark off, delimit' and I connect it with Lat. *terminus*, Gk. *τέρμα* 'boundary'. If so we must certainly identify *mita(i)*- (i.e. *meta(i)*-) with Lat. *mētari* 'measure, lay out (a camp)'. Note that the corresponding noun, *meta* 'goal-post', would be translated into Greek as *τέρμα*. Probably *tarma(i)*- may also be identified with Lat. *terminare*, for there is nothing to interfere with the assumption that Hittite simplified the sound-group *rmn* to *rm*.

I have recently<sup>7</sup> connected Hittite *happara(i)*- 'sell' with Lat. *parare* 'buy', on the assumption that the Hittite word contains the prefix *ha* = IE \**o*. In this case Latin does not possess a noun from which the verb could be derived; but, as noted above, Hittite has a noun *happar* 'business transaction'.

Particularly striking is the correspondence between such Hittite denominatives as *aššuwa(i)*- 'be good' from *aššuš* 'good' and the Latin type seen in *aestuar* from *aestus* 'billowy motion', *fluctuar* from *fluctus* 'wave', *arcuar* from *arcus* 'bow', *deartuar* beside *artus* 'limb', *sinuar* from *sinus* 'curve', *manuari* 'steal' from *manus* 'hand', *tumultuari* from *tumultus* 'uproar'.<sup>8</sup> To this list we must add *gravare* beside *gravis* 'heavy', *levare* beside *levis* 'light', and *tenuare* beside *tenuis* 'thin'; for these adjectives were originally *u*-stems.

The agreement of Hittite with Latin in the formation of denominatives from *u*-stems is the more significant, since they also agree in treating the *i*-stems quite otherwise. Latin employs the suffix *io* to form *finio* from *finis* 'boundary', *vestio* from *vestis* 'clothing', *tussio* from *tussis* 'cough', *sitio* from *sitis* 'thirst'; and just so we find in Hittite (Götze, *Madd.* 97 f.) *armizziya*- from *GIšarmizzi*- (meaning uncertain), *išhamiya*- 'sing' from *išhamaiš* 'song', *tuzziya*- 'encamp' from *tuzziš* 'camp', *hapatiya*- 'obey' from *hapatiš* 'servant', *hulaliya*- 'entwine' from *GIšhulali* 'distaff', *lazziya*- 'grow well, recover' from *lazzaiš* 'orderly condition', *šankunniya*- 'be a priest' from *šankunniš* 'priest', *zahhiya*- 'fight' from *zahhaiš* 'battle'. When Latin forms verbs of the first conjugation from *i*-stem nouns, the stem-vowel disappears, thus: *piscor* from *piscis* 'fish', *testor* from *testis* 'witness', *illustro* from *illustris* 'bright', *infelico* from *infelix* 'unlucky'. With such formations corre-

<sup>6</sup> See Sturtevant, *Transactions of the American Philological Association* 58. 20 (1927).

<sup>7</sup> *LANGUAGE* 4. 164 (1928).

<sup>8</sup> See Stolz, *Historische Grammatik d. lat. Sprache* 1.592.



spond Hittite *arša(i)* from *aršiš*, *gangala(i)*- from *gangatiš*, and *warra(i)*- from *warriš*.

In Greek also we have a few verbs of the type of Hittite *aššuwa(i)*- from *aššuš*. We have already noticed the Greek etyma of this particular pair, namely *ἔαω* and *έβς*. Other examples are *πελεκάω*, whose original digamma is guaranteed by *πελέκκησε* (*Odyssey* 5. 244), from *πελεκύς* 'axe', *ιχθυάω* 'angle' from *ιχθύς* 'fish', and *ἐγγυάω* 'give security' (originally 'give into one's hand') beside Avestan *gav(a)*- 'hand'.<sup>9</sup> We must include also *ἀράομαι* from *\*ἀρφάομαι*, on account of its identity with Hittite *aruwa(i)*- (see above p. 10). Greek, however, unlike Latin and Hittite, exhibits similar formations from *i*-stems, e.g. *δηριόμαι* from *δῆρις* 'fight', *μητιόμαι* from *μῆτις* 'wisdom', *ὀκριόμαι* from *ὀκρίς* 'roughness'. The lack of such denominatives in the related languages makes it probable that Greek is here the innovator. No doubt the source of the type is to be found in the more numerous derivatives of stems in *ia* and *io*, such as *σκιάω* from *σκία* 'shadow', *ἀνιάομαι* from *ἀνία* 'sorrow', *ἀντιάω* from *ἀντίος* 'opposite', and *αἰτιάομαι* from *αἷτιος* 'blameworthy'; for Latin shows formations analogous to these, such as *insidior* from *insidiae* 'ambush', *glorior* from *gloria* 'fame', *vario* from *varius* 'diverse', and *consilior* from *consilium* 'counsel'.

We have, then, in Hittite, the familiar verbs in *āiō*, and many of them are as clearly denominative in origin as in any IE language. But, oddly enough, no type of Hittite noun can plausibly be connected with the IE *ā*-stems. It is conceivable that this declension was merged with the *o*-stems in the Hittite *a*-declension; but such an assumption will not help us out of our present difficulty, since only one or two Hittite *a*-stems have so far turned up beside verbs in *a(i)*. As far as Hittite is concerned the suffix *a(i)* from original *\*āiō* is to be regarded, not as a fusion of two suffixes, but as a single formative element, by which verbs are derived from *u*-stems and consonant stems, and, after loss of the stem vowel, from *i*-stems and *a*-stems as well.

Now, the *āiō* suffix often behaves in the same way in the IE languages. We have already cited several examples, such as Lat. *sinuare* and *testari*, and Gk. *ιχθυάω*. Skt. *priyāyate* 'be friendly with' from *priyas* 'friend' is a denominative with suffixal *āiō* that must date from proethnic times on account of the cognates, Gothic *frijōn* and Church Slavonic *prijaja* 'treat kindly'. Similarly Lat. *novare* and Old High German *niuwōn* 'renew' imply IE *\*neṃāiō-* from *\*neṃos* 'new'. In Sanskrit

<sup>9</sup> Cf. Boisacq, *Dictionaire Étymologique de la Langue Grecque*, s. v. *ἐγγίη*.

denominatives in *āya* are freely made from *a*-stems, but scarcely at all from consonant stems. Greek has many denominatives in *aw* from *o*-stems, as *ἀτιμάω* from *ἄτιμος*, and a few from consonant stems, as *στιχάομαι* from *στίχες* 'ranks'. In Latin both these types are common, e.g. *donare* from *donum* 'gift', *nominare* from *nomen* 'name'. Similarly Old Irish shows *marbaim* from the *o*-stem *marb* 'death' and *athrīgaim* 'dethrone' beside the consonant stem of *rī* 'king'. In Germanic we have many *ājo*-denominatives from *o*-stems (Goth. *frijōn*, OHG *niuwōn*) and particularly from stems in *s* and *n*, e.g. Goth. *hatizōn* from *hatis* 'hate' and *frauwinōn* 'be master' from *frauja* 'master'. Typical Balto-Slavic denominatives are Lithuanian *kilnóju* from *kilnas* 'high' and Ch. Sl. *prijažaję*. Ch. Sl. *znamenaję* comes from the *n*-stem *znamež* 'symbol'.

Peculiarly significant is the fact that in the oldest documents of IE speech there are numerous *ājo*-verbs for which no nouns of any form can be cited as primitives. Whitney (*Sanskrit Grammar* §1066) says:

"A number of denominative stems occur in the Veda for which no corresponding noun stems are found, although for all or nearly all of them related words appear. . . . A Vedic group of stems in *āya* . . . have allied themselves to present systems of the *nā*-class, and are found alongside the forms of that class: thus, *grbhāyati* beside *grbhṇāti*. Of such the Rig-Veda has *grbhāya-*, *mathāya-*, *pruṣāya-*, *muṣāya-*, *śrathāya-*, *skabhāya-*, *stabhāya-*. A few others have no *nā*-class companions: thus, *damāya-*, *śamāya-*, *tudāya-* (Atharva-Veda); and *panāya-*, *naśāya-*, *vr̥ṣāya-*, (*vr̥ṣ* 'rain'), *vasāya-* (*vas* 'clothe'), and perhaps *aśāya-* (*aś* 'attain')".

From Homer we may cite as similar verbs without known nominal source: *ἀντάω*, *ἀσχαλάω*, *ἀπολιχμάομαι*, *διφάω*, *εἰλυφάω*, *εἰρωτάω*, *λάομαι*, *κοιμάω*, *κυβερνάω*, *κυκάω*, *λωφάω*, *μυκάομαι*, *νωμάω*, *οἰμάω*, *σκιρτάω*, *στρωφάω*, *τηλεθάω*, *τρωπάω*, *τρωχάω*, *ψηλαφάω*.

Brugmann<sup>10</sup> mentions as examples of old *ājo*-verbs of unknown source Lat. *hio*, Lith. *žióju* 'yawn'; Gk. *ύλάω* 'bark', Lith. *ulóju* 'shout, call', Lat. *ululo* 'yell'; Lat. *iuvo* 'help'; Lat. *mico* 'vibrate'; OIr. *scaraim* 'separate'; Goth. *mitōn*, OHG *mezzōm* 'measure'; Lith. *lindoju* 'stecke worin'; Ch. Sl. *razvr̥žaję* 'open'.

The IE evidence is enough to show (1) that the suffix *ājo* is of extreme antiquity, and (2) that it was not always associated with nouns in *ā* at the close of the IE period. The Hittite evidence indicates that the suffix was originally independent of nouns in *ā*, and that it was probably

<sup>10</sup> *Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen*<sup>1</sup> 2. 1109.

more ancient than they. I conclude that *āīo* is to be considered as a unit; it was not, as has usually been supposed, a conglomerate of stem-final *ā* and suffix *īo*.

If the *āīo*-verbs antedate the corresponding *ā*-stem nouns, it follows that our conception of the relationship between the two categories must be reversed; these *ā*-stem nouns are pendants of the verbs in *āīo*. It has long been recognized that certain *ā*-stem nouns are 'back-formations', e.g. Lat. *pugna* 'fight' from *pugnare*, which is a denominative from *pugnus* 'fist'; Gk. *κατάρα* 'curse' from *καταράσμαι*, a compound of *ἀράσμαι* 'pray'. But the *ā*-stem nouns as a class cannot have originated in precisely this way; *pugna* from *pugnare* was formed on the model of such pairs as *cena:cenare*, *flamma:flammare*, *multa:multare*, and without some sort of models the process of inverse derivation is scarcely possible. The original impulse must therefore have been supplied by denominatives from *o*-stems and *i*-stems with the suffix *īo*; e.g. *\*seneīo*- 'grow old': *\*sene/o*- 'old' = *\*arūāīo*- 'pray': *\*arūā*- 'prayer' or *\*mēti-īo*- 'plan, measure': *\*mēti*- 'a plan, a measure' = *\*arūāīo*-: *\*arūā*-.

It is doubtful, however, whether inverse derivation of this sort would occur if it resulted in words of unfamiliar type. I am therefore more than ever inclined to agree with Hirt<sup>11</sup> in deriving a number of *ā*-stem nouns directly from dissyllabic bases; e.g. *βλα* 'strength', *ἀγῆ* 'astonishment', *δύη* 'misery', *φύη* 'growth'. The existence of such words rendered plausible the products of inverse derivation from verbs in *āīo*, and thus secured their adoption into the language.

This theory of the origin of the IE *ā*-stem nouns favors the current belief that the European languages preserve the original inflection of the *ā*-stems better than the Indo-Iranian languages. The opposite view, however, which has been supported by Collitz,<sup>12</sup> is not excluded. If we assume IE denominatives with suffix *o*, these would furnish a model by which the *āīo*-verbs may have given rise to nouns in *āi*, which would have fallen into line with the diphthongal stems like *\*dīēus* and *\*rēis*. For details of the later development, reference to Collitz will suffice.

<sup>11</sup> *Indogermanische Grammatik* 2. 204 f.

<sup>12</sup> Bezenberger's *Beiträge zur Kunde der Indogermanischen Sprachen* 29. 81-114 (1905).



## PRAENESTINE ASOM FERO

PAULINE TURNBULL

UNIVERSITY OF RICHMOND

[In *Corpus Inscr. Lat.* 1<sup>2</sup>. 2. 560 ASOM FERO is to be interpreted *adsum, fero*. The interpretation is supported by parallels from Plautus.]

There is a bronze cista from Praeneste, first published by L. Duvau in 1890,<sup>1</sup> around the side of which, in a circular band, the preparation of a meal is portrayed. The scene includes seven men, divided into three groups of two each with the seventh man by himself; and every man is attended by a short inscription.<sup>2</sup> The first pair has to do with the carving of the meat; the second with cutting it into small pieces and carrying the pieces on platters to the fire; the third with the cooking, which is evidently a boiling process, since the inscriptions of this group contain the words *made* and *misc*. The seventh man hurries away from the fire carrying in each hand a long spit on which there are several pieces of the cooked meat; he utters the words ASOM FERO.

It is the word *asom* that I wish to discuss. Duvau<sup>3</sup> saw its exact equivalence to Latin *assum* 'roasted',<sup>4</sup> but rejected this interpretation because the meat had not been roasted, but boiled. He therefore took *asom* = *assum*, supine of *areo*, or = *arsum*, supine of *ardeo*, with the meaning 'I am bringing (the meat) to be roasted', and sought to justify the writing of the supine with *-om*, although the supine is a *u*-stem, and there is no basis for a change of *-um* to *-om* in Latin of an early date.<sup>5</sup>

<sup>1</sup> In *Mélanges d'Archéologie et d'Histoire (École Française de Rome)*, 10. 303-16 and Plate VI, without naming the collection in which it was. W. Fröhner, publishing it in *La Collection Tyzskiewicz* 27-8 and Plate XXIX, revealed the location and the ownership.

<sup>2</sup> A critical consideration of these legends is to be found in the next article in this issue of *LANGUAGE*.

<sup>3</sup> Pages 310-3.

<sup>4</sup> Fröhner accepts *asom* = *assum* 'le rôti'. Difficulties in the formation of *assum* are raised by Conway, *Ital. Dial.* 2. 603, but are solved by views presented in Walde, *Lat. etym. Wörtl.*<sup>2</sup>, s.v. *areo*.

<sup>5</sup> Umbrian supine *aso* for *assum* shows a special Umbrian change of *-um* to *-om*, which cannot be used to support Praen. *asom* as a supine.

No advance on this interpretation has since been made. But I object to this interpretation not merely because of the impossibility of a Latin (Praenestine) supine in *-om*, but also because it does not seem natural that such an elaborate cooking scene should end with the cooking still unfinished. On the other hand, this method of carrying food is still used in Italy and in Greece, and the attitude of the man suggests that he is hurrying to the patrons who are waiting for their meal. The Italian waiter of to-day often cries *eccomi* 'here I am', as he is leaving the kitchen in haste to serve his customer. So I propose that *asom fero* = *adsum*, *fero* 'here I am, I am bringing it'.

Plautus uses two words *assum*, one the accusative of *assus* 'roasted', the other the assimilated form of *adsum* 'I am present'. The former is found only *Asin.* 179-80:<sup>6</sup> *eum quouis pacto condias l uel patinarium uel assum, uorses quo pacto lubet*; in the nominative it is seen also in *Most.* 1115: *nam elixus esse quam assus soleo suavior*. But *assum* or *adsum* 'I am present' is used thirteen times:

*Curc.* 164: *adsum: nam si apsim, hau recusem quin mihi male sit, mel meum.*  
*Mil.* 1031: *adsum, impera si quid uis.*

*Poen.* 279: *Ag. Milphio, heus, Milphio, ubi es? Mi. assum apud te eccum. Ag. at ego elixus sis uolo.*

*Rud.* 1273: *adsum equidem, ne censionem semper facias.*

*Truc.* 514: *adsum, adduco tibi exoptatum Stratophanem.*

*Truc.* 826-7: *adsum, Callicles: per te opsecro/genua....*

*Amph.* 956: *Amphitruo, adsum. siquid opus est, impera, imperium exsequar.*

*Capt.* 978: *Hegio, adsum. si quid me uis, impera.*

*Trin.* 276: *pater, adsum, impera quiduis.*

*Amph.* 1131: *Bono animo es, adsum auxilio, Amphitruo, tibi et tuis.*

*Most.* 1075: *siquidem pol me quaeris, adsum praesens praesenti tibi.*

*Amph.* 577: *et apud te adsum Sosia idem.*

*Rud.* 1050: *quoniam ego adsum, faciet nemo iniuriam.*

The parallelism to the use in Praenestine *asom fero* is very clear. In the first six of these passages *adsum* is the first word of the speaker, and in the next three it is preceded only by a vocative; in two more it heads its clause. In the first nine, *adsum* is soon followed by a coordinate verb.<sup>7</sup> Such also is the usage in *asom fero* = *adsum, fero*. That

<sup>6</sup> The citations from Plautus follow the text of Lindsay's Oxford edition. The Goetz and Schoell edition of 1898 reads *assum* also in *Amph.* 956, *Capt.* 978, *Curc.* 164, following good manuscript authority; and there is lesser warrant for *assum* in several other passages. Conversely, there is excellent authority for *adsum* at *Poen.* 279, where the pun requires *assum*.

<sup>7</sup> *Eccum* may fairly be included among these, since it has the same value in the sentence.

*adsum* was in Plautus' time pronounced *assum*, is shown by the pun in *Poen.* 269, where the other speaker purposely misunderstands in order to make a joke: 'Here I am before you, see me', but the other replies 'But I prefer you to be boiled', as though the previous words had meant 'See me roasted before you'. That the older form of Latin *sum* was \**som*, is shown by Oscan *súm*, which is the writing for *som* in the native Oscan alphabet.

In view of these facts, therefore, (1) that *asom* is a correct archaic writing for *assum* = *adsum*, (2) that *assum* was often, perhaps even normally, the pronunciation of *adsum* in the time of Plautus, (3) that *adsum* was used by Plautus in precisely parallel situations in the sentence, and (4) that this identification satisfies the action of the scene portrayed on the cista, I offer the interpretation 'Here I am, I am bringing it', for *asom fero*.

## THE COOKERY INSCRIPTION FROM PRAENESTE

ROLAND G. KENT

UNIVERSITY OF PENNSYLVANIA

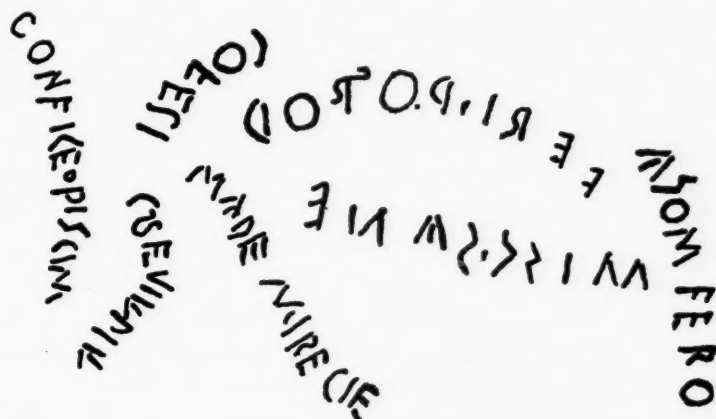
[Interpretation of the other inscriptions of *CIL* 1<sup>2</sup>. 2. 560, and discussion of their linguistic peculiarities; esp. *POROD* but *RECIE*, *SANE*; and the writing of the final diphthong in *COFECI* and *COEPI*.]

The bronze cista from Praeneste first published by Duvau in 1890 bears around its side an interesting kitchen scene with inscriptions; I refer to the cista treated in the preceding article. As Duvau noted, there are seven men in the scene, and seven inscriptions, running one from near the mouth of each man, and therefore most probably utterances of those to whom they are respectively attached. The scene develops from left to right. Man No. 1 holds something in his hand which because of injury to the cista cannot be identified; a dog looks up expectantly at him. No. 2 faces No. 1 and is in the act of removing from a rack on the wall a dressed carcass of a cloven-hoofed animal, a calf or a swine or a sheep; it is not large enough to be a beef. No. 3 faces to the right, holding in his right hand a carving knife and in his left a tray filled with small round pieces of meat, toward which a dog leaps up. No. 4 advances toward No. 3, swinging an empty platter in his right hand. No. 5 is stirring, with a large broad-bladed instrument, the contents of a tripod brazier standing over a fire. No. 6 faces No. 5 and takes from the brazier, with a seven-tined fork, pieces of cooked meat which he places on a tray held in his left hand. No. 7 is walking hastily to the right, carrying in his right hand a spit on which are impaled five pieces of meat, in his left a spit with at least four pieces—the drawing is here damaged, and it may have held more.

The literature concerning this cista and its inscriptions, so far as I have been able to trace it, is as follows:

- L. Duvau, *Mélanges d'Archéologie et d'Histoire (École Française de Rome)* 10. 303-16 and Plate VI (1890).
- R. Engelmann, *Das homerische Pempobolon*, in *Jahrbuch d. kais. deut. Arch. Instituts* 6.173-6 (1891); this deals only with the fork held by No. 6.
- E. Lattes, *Iscrizioni Paleolatine* 133 (not accessible to me).

- W. M. Lindsay, *The Latin Language* 277 (1894) = *Die lateinische Sprache*, übers. von H. Nohl 317 (1897).  
 W. M. Lindsay, *Handbook of Latin Inscriptions* 31-2 (1897).  
 R. von Planta, *Grammatik der oskisch-umbrischen Dialekte* 2. 586-7 (1897).  
 R. S. Conway, *The Italic Dialects* 1. 311-2 (1897).  
 W. Fröhner, *La Collection Tyszkiewicz* 27-8 and Plate XXIX (undated, but about 1898; the preface is dated 1892).  
 A. Ernout, *Le Parler de Préneste* 9 = *Mémoires de la Société de Linguistique de Paris* 13. 301.  
 E. Diehl, *Allateinische Inschriften*<sup>2</sup> (in Lietzmann's *Kleine Texte*), p. 65, no. 653 (1911).  
 A. Ernout, *Recueil de Textes Latins Archaïques* 33 (1916).  
 E. Lommatzsch, *Corpus Inscriptionum Latinarum* I<sup>2</sup>. 2. 560 (1918).  
 Duvau, Engelmann, and Fröhner give the facsimile of the entire scene; Lommatzsch gives facsimiles of the inscriptions only.



## FACSIMILE OF THE LEGENDS

with original orientation, horizontal and vertical

The legends in the scene, with the variant readings which have been suggested, are the following:

- (1) *confice piscim* Duvau; so all.
- (2) *coenalia* or possibly *coepi alia* Duvau; *coenalia* or *coena pia* Lindsay LL; *coenalia* Lindsay Hdb., von Planta, Conway, Fröhner, Ernout PP; *crevi alia*<sup>1</sup> Diehl, Ernout RT, Lommatzsch.
- (3) *cofeci* Duvau; so all.

<sup>1</sup> Presumably in the meaning 'I have cut some others', from *cerno* in its original meaning 'separate'.

- (4) *feri porod* Duvau; so all, except that Conway suggested the possibility of *potrod*, since the top of the *r* runs across the vertical as in a ligature.
- (5) *made* (for *madet*) *mire cie* or *mi recie*, perhaps *madent recte* Duvau; *made mi recie* or *made mire, cie* Lindsay LL; *made* (or *madet*) *mi recie* Lindsay Hdb.; *made mirecie* von Planta; *made mire cie* or *maden isecie* or *madent regie* Conway; *made mi recte* Fröhner; *made mire cie* Ernout PP; *madent recte* Diehl, Ernout RT, Lommatzsch.
- (6) *misc sane* Duval; so all.
- (7) *asom fero* Duval; so all.

The variants may be quickly disposed of. *Coenalia* 'dinner preparations' has an unetymological *oe* which could be due only to confusion with Greek *κοινός*, and such a confusion is hardly thinkable at the date of this cista,<sup>2</sup> which must with Duvau be placed a little before 200 B.C. Further, there are just seven men and seven legends; the other legends are obviously utterances of the men, and it is hardly likely that one man alone would lack his speech, and that a general title for the whole scene would be placed just where No. 2 should have his speech engraved.

Legends Nos. 2, 3, 4, and 6 run from right to left, and Nos. 1, 2, and 7 run almost vertically downwards; but no certain letters are engraved upside down with reference to the rest of the same legend.<sup>3</sup> Now in No. 2 the second letter is much like a Greek Ω, and may be taken as an opened o or an r with an irregularly drawn hasta; the fourth letter has the third stroke of the n separate from the first two, and may be read *pi*, but not *vi* unless the *v* be read upside down. Thus *coeipi* is possible, but not *crevi*. *Pia* for *-lia* also involves reading a letter upside down.

In legend No. 5, the only simple reading is *made mi recie*, unless we are to accept uncrossed *t*'s, for which I see no real reason. I accept therefore the following text: CONFICE PISCIM; COEPI ALIA; COFECI; FERI POROD; MADE MI RECIE; MISC SANE; ASOM FERO.

Now as even Duvau recognized,<sup>4</sup> there is nothing in the scene to make

<sup>2</sup> F. Sommer, *Handbuch d. Lat. Laut- und Formenlehre*<sup>2</sup> 77 (1914), expresses doubt that the reading *coenalia* is correct.

<sup>3</sup> Professor J. C. Rolfe, in about 1904, told me that some scholar (I do not know whom, nor if the view was ever published) read this legend backward as *aît laneos* 'the butcher speaks'. Such a view involves reading reversible letters backward, runs the inscription toward and not from the mouth of the nearest man, and does not make it an utterance of the man, but a label; though the *e* of *laneos* (= Latin *lanius*) is justified by Praen. *fileia* and *fileai*, *CIL* I<sup>2</sup>. 2. 60 and 561.

<sup>4</sup> Pages 303-4.



us think that it is a sacrifice; the mention of a fish is enough to dispose of such an idea. There is equally nothing to indicate that the man who is departing on the right is carrying an offering to the Lares:<sup>5</sup> the whole proceeding suggests an ordinary tavern scene, where food is being prepared for guests. One may compare the scenes of similar nature used to adorn the walls of a wine-shop at Pompeii.<sup>6</sup>

The meaning of the scene is then as follows: No. 1, holding in his hand a pan of some kind, says to No. 2 *confice piscim* 'finish up the fish'. No. 2, taking down the carcass of a calf or the like, replies *coepe alia* 'I've begun something else'. No. 4, returning from the actual cooking with an empty tray, says to No. 3 *feri porro* 'cut up some more', to which No. 3, with a full tray, replies *confeci* 'I've finished doing it already'. No. 5, addressing the brazier over the fire, remarks *made mi regie* 'boil for me royally', and No. 6 admonishes him *misce sane* 'stir it then!' No. 7, hastening to the table where the guests are waiting, calls out *assum, fero* 'here I am, I'm bringing it!'<sup>7</sup>

The linguistic features are as follows: (1) The *c* in *recie* has the old value *g*. (2) The *-c* of *misc* has the value of the name of the letter, *ce*.<sup>8</sup> (3) The *-im* of *piscim* has not yet been replaced by *-em*, after consonant stems. (4) The *n* before *f* is written in *confice*, but not in *confeci*. (5) The single consonant is still written for the double (or long) consonant, in *porod* and *asom*. (6) Vowel weakening is complete in *confice*, but not in *asom*. (7) Final *d* after a long vowel is written in *porod*, but not in *regie* and *sane*. (8) The final diphthong is written not *ei*, but *i*, in *confeci* and *coepe*. Of the last two items I must speak more at length.

The variation in the finals of *porod* and *regie sane* is matched in the well-known inscription from Spoleto,<sup>9</sup> which contains the following forms: *violatod*, *licetod*, *datod* bis, *suntod*, *exvehito*, *exferto*; *eod*, *quo*, *dolo* bis, *malo*; *bovid* bis; *die* bis, *causa*. The final *d* is here lost after *a* and *e*, and six times after *o*, as against six forms with *-od* and two with *-id*. There is no reason to assert that the *d* was lost after all long vowels at precisely the same time; the loss may have started after *a* and *e*, and then passed to the position after *o*, and lastly have affected *-id*. This

<sup>5</sup> Despite Lommatzsch, l. c.

<sup>6</sup> Described in Mau-Kelsey, *Pompeii*, 394-6 (1899); cf. also the scenes of ordinary life in a private house, ib. 54-6.

<sup>7</sup> I follow Miss Turnbull's interpretation of *asom* in the preceding article.

<sup>8</sup> Ernout, *Parler de Préneste* 17 = MSL 13. 309.

<sup>9</sup> *CIL* XI. 4766 = I<sup>2</sup>. 2. 366; the final word *estod* now lacks its last two letters.

would explain the phenomena in the Spoleto inscription; and our Praenestine cista, with *-od* but *-e*, stands in perfect agreement.

The final monophthong in *cofeci* and *coepi* is more astonishing.<sup>10</sup> In the Latin of Rome we do not find this writing for the earlier diphthong until 150 B.C.; but our Praenestine cista is at least fifty years earlier than that date. Moreover, this diphthong appears rather as *e* than as *i* in other Praenestine inscriptions: dat. *Hercole, Hercule*; nom. pl. *magistres, coques, fabres, Pontanes*;<sup>11</sup> abl. *sueque 'suisque' ede 'iisdem'*.<sup>12</sup> But the readings with *-i* in the perfect are confirmed by *dedi* in another Praenestine inscription,<sup>13</sup> alongside *donom* with unweakened *o*, even as in our cista *cofeci* and *coepi* are accompanied by *asom*. It would appear that the *-ei* of the first singular perfect, from earlier *-ai*, became a close *e* like any other earlier *-ai* or *-oi* and then followed not the normal development in Praenestine, but the influence of the paradigm in the perfect tense: *-i-stei, -i-t, -i-mus, -i-stis*, which, whatever their exact forms in Praenestine,<sup>14</sup> almost certainly had *i* in the position here set off by hyphens.

<sup>10</sup> Curiously, I find absolutely no mention of this in any of the handbooks or discussions. Yet *cofeci*, at least, is certain. Only Meillet, *Esquisse d'une Histoire de la Langue Latine* 98, remarks upon the *-i* of Praen. *dedi*, but does not hint at the forms in the cookery inscription.

<sup>11</sup> Second declension forms with added *-s*; Sommer, op. cit. 346-7.

<sup>12</sup> For these forms, cf. Ernout, *Parler de Préneste* 34-5 = *MSL* 13. 326-7.

<sup>13</sup> *CIL* XIV. 2863 = I<sup>2</sup>. 2. 60, which contains also two genitives of the third declension in *-os, nationu* with weakened vowel and *diovo* with unweakened vowel.

<sup>14</sup> *CIL* XIV. 4112 = I<sup>2</sup>. 2. 561, apparently of mixed Praenestine-Roman origin, has *dedit* and *fecid*.



## SPANISH ETYMOLOGIES

CARLTON C. RICE

CATAWBA COLLEGE

[1. *estragar* < \**stragare*: *strages*. 2. *sesgar* < \**sesecare* (defended against Spitzer and Ullrich). 3. *simado*, *sima*: *σιμῶς*. 4. *sosegar* < \**insulscicare*.]

1. *Estragar* 'to spoil', *estrago* 'ravage'.

It is plain that the noun is not derived from the Latin noun *strages*, but is a postverbal formation. Meyer-Lübke, in his *Romanisches etymologisches Wörterbuch*, postulates a Vulgar Latin \**stragicare*, 'verheeren', evidently connecting this type with *strages*, as \**caballicare* is formed from *caballus*. However, it is questionable whether \**stragicare* would have developed into Spanish *estragar*. An analogous word, *cogitare*, becomes *cuidar* in Spanish. Meyer-Lübke, *Romanische Grammatik* 1. 444, indicates the regularity of the development *cogito* > *cuido*; likewise R. Menéndez Pidal, *Manual elemental de gramática española*<sup>3</sup> 66,110. Since no clear case of the development of Latin -*agicare* into Spanish -*agar* has ever been cited, it seems reasonable to hold that the type \**stragicare* would have developed into \**estraigar* in Spanish.

I postulate the type \**stragare*, formed from *strages* as *plantare* is formed from *planta*. The phonetic development \**stragare* > *estragar* is doubtless regular, being exactly paralleled by that of *plagare* > *llagar*.

2. *Sesgar* 'to cut on the bias', *sesgo* 'oblique'.

The type \**sesecare* 'to cut apart', proposed by me in the *Publications of the Modern Language Association of America* 20. 343, after having been accepted by Meyer-Lübke, *Romanisches etymologisches Wörterbuch*, has been attacked by Leo Spitzer, *Revista de filología española* 13. 116, on the sole ground that the prefix *se-* is no longer productive in Romance. Spitzer tries to show a connection between *sesgar* and \**sessicare*, a type postulated by Meyer-Lübke to account for Old Spanish *sessegar* 'sich setzen, sich niederlassen', and by Meyer-Lübke taken as the source of Spanish *sosegar* 'to quiet'. I shall discuss below both *sosegar* and \**sessicare*.

On the formal side, we should note in the postulated development \**sessicare* > OS *sessegar* > S *sesgar* the suspicious dropping of a syllable between the old and modern Spanish period. Spitzer cites, to be sure, one similar-looking series, *vindicare* > *vendegar* > *vengar*; but this comparison suggests phonological and morphological queries. Would \**sessicare*, a late formation, show the same treatment of the second vowel as *vindicare*, an ancient word? Is not *vendegar* (the occurrence of which I am unable to verify) a semi-learned rather than a popular development? In Menéndez Pidal's *Manual* 65<sup>1</sup>, 133, I find *vengar* given as the popular, *vindicar* as the learned derivative of *vindicare*. If *vendegar* is the regular Old Spanish form of *vindicare*, as Spitzer seems to think, why is it not to be found in Meyer-Lübke's *Romanische Grammatik* or *Romanisches etymologisches Wörterbuch*?

On the semantic side, the suggested etymology leaves even more to be explained. Spitzer supposes that the original sense of *sesgar* was 'to set', mentions Spanish *sesga* 'gore', compares the German phrase 'einen Lappen (Flicken) einsetzen', but fails to attack seriously the problem of showing that the meaning 'to set' might naturally shift to that of 'to cut across'. To be sure, *sesga* 'gore' is to be associated with the verb *sesgar* or with the adjective *sesgo*, but it is readily interpreted as meaning etymologically 'a cutting' or 'an oblique piece'.

Spitzer suggests that the type \**sesecare*, which has always displeased him, might be eliminated in the interest of reducing the number of etyma in the Romance dictionary. However, it is phonetically perfect, and gives a meaning quite close to the meanings of the Spanish derivatives assigned to it. Its formation being paralleled by that of *secedere*, *secernere*, *secludere*, *semovere*, *seponere* and various other Latin words, the linguistic facts shown seem to me to indicate that the word \**sesecare* probably existed in ancient Latin.

The type \**sexicare*, formed from an assumed participle \**sexus* for *sectus* was suggested by Ullrich in the *Zeitschrift für romanische Philologie* 4. 383. Meyer-Lübke, *REW* 592, calls the formation of \**sexus* improbable. However, Ullrich cited no less than 13 variants like *fixus* beside *fictus*, etc.<sup>1</sup> While the formation \**sexicare* seems to me justifiable, its short vowel makes it phonetically a less desirable type than \**sesecare*; and the meaning of the latter word is also somewhat closer to that of the Spanish verb.

<sup>1</sup> *Fartus farsus, fixus fictus, fluxus fluctus, frictus frixus, indultus indulsus, mersus mertus, emulsus emulctus, pulsus pultus, sartus sarsus, scriptus scripsus, tensus tentus, tertus tersus, tortus torsus.*

### 3. *Simado* 'deep' (of lands), *sima* 'abyss'.

Baist, *Zeitschrift für rom. Phil.* 5. 563, derived *sima* from Greek *σιμός* 'eingebogen, hohl, ansteigend'. This etymology has recently been rejected by Meyer-Lübke, *REW*, defended by Persson, *Eranos* 20. 80,<sup>2</sup> and contested by Spitzer, *Rev. de fil. esp.* 23. 117, who proposes instead the type *\*sedimen*, a base recorded by Meyer-Lübke, following Salvioni (*Z. f. rom. Phil.* 22. 174) as the etymon for Old Italian *sedime*, 'Untergrund'. However, Spitzer realizes that *\*sedimen* would rather have produced *\*seimbre*, irregularly *\*simbre* in Spanish. This *\*simbre* he sees in Spanish *cimbre* 'subterranean gallery'. I am willing to admit a degree of probability in this one feature of Spitzer's etymology. But it is much harder to follow him when he suggests that *\*sedimen* may also have developed into *sima*, comparing Old Spanish *sija* beside *seija* < *sedilia*, and Spanish *grama* < *gramen*, both irregular developments. On the whole, the irregularities presented by the etymology are so great that it may be said to rest merely on the meaning of the etymon indicated by the Old Italian word, and on a slight resemblance in forms.

The Greek adjective *σιμός* means not only 'snub', 'bent upwards', but also, according to unmistakable lexicographic evidence shown in the Greek dictionaries, 'hollow', 'concave'. This essential fact establishes the semantic basis for Baist's etymology. Meyer-Lübke rejects not *σιμός*, which, in accordance with his usual practice when dealing with Greek-Latin etyma, he does not distinctly mention, but the attested *simus*, defined as 'aufwärts gebogen, platt', which he declares 'begrifflich nicht möglich'. Now is it not fair to assume, notwithstanding this summary treatment and Spitzer's opposition in the interest of the etymon *\*sedimen*, that *simus* had not only the meaning 'snub' but also that of 'hollow', in Latin as in Greek? A considerable number of Greek words which have descended into the Romance languages are not in the Latin dictionary at all, yet both the form and the meaning which they must have had in Vulgar Latin are regarded as known. Leaving out of account doubtful bases and borrowings from middle and modern Greek, I find 115 Greek etyma among the 182 Greek words listed by Meyer-Lübke on pages 1072 and 1073 of the *REW* as not recorded in the same form and meaning in George's *Lateinisch-deutsches Wörterbuch*. For example, the etymon of French *plat* and its congeners is given as Greek *plattus*, 'flach'. Now, the existence of *plattus* in Vulgar Latin is inferred from the form of the Romance words, and it is generally

<sup>2</sup> In this article Persson shows conclusively that *σιμός* meant originally 'bent', 'concave', and that its use in the sense of 'snub' is a secondary specialization.

connected, for example by Schwan-Behrens, *Grammaire de l'ancien français*<sup>3</sup> 123, with Greek πλατύς, which, however, means essentially 'broad', only secondarily and occasionally 'flat'. When we find *platys* attested *once* in Pliny<sup>3</sup> with the meaning 'broad', not in that of 'flat', and note that the word means 'broad' in modern Greek, are we to abandon the etymology unless we can find the meaning 'flat' attested in Latin? Certainly not; yet such a procedure would be rather analogous to that of Meyer-Lübke and Spitzer in accepting for the Latin *simus*, obviously borrowed from the Greek, only that meaning which happens to be attested in Latin.

Starting, therefore, from the form *simus*, assumed to mean 'hollow' in Vulgar Latin as in Greek, I posit the verb *\*simare* 'to hollow', the past participle of which accounts for the adjective *simado* 'deep' (of land). *Sima* 'abyss', properly 'hollow', may be taken either from the adjective *simus* or from *\*simare* as a postverbal.

4. *Sosegar* 'to pacify', *sosiego* 'tranquillity'.

The verb is often derived from *\*sessicare*, but the *o* presents enormous difficulty, as all who have studied Spanish phonology will at once admit.<sup>4</sup> The base *\*sessicare*, I will note in passing, should not be associated with the intransitive verb *sedere*, but must be formed from the noun *sessus*, 'seat'.

*Sosegar* is, I am convinced, another word. I derive it from the base *\*insulsicare*, a type formed like *\*albicare*, *\*amaricare*, etc., to which I assign the primary meaning 'to stupefy', whence—perhaps originally as a medical term—'to quiet'. Cf. Spanish *soso* 'flavorless', 'stupid', < Latin *insulsus* 'flavorless', 'stupid'.

According to Crouch, *Encyclopaedia Britannica*<sup>11</sup> 1. 207, there is abundant evidence to show that the use of anesthetics is a practice of great antiquity.

The diphthong in the strest syllable of *sosiego* is evidently due to the attraction of the verbal forms like *sosiega*, where it results from the analogy of verbs having a short *e* in the stem, which develop the diphthong regularly. Cf. Menéndez Pidal, *Manual* 229, where the following examples of this shift are given, among others: *siembran*, *piensa*, *friega*, *pliega*, *riega*, *nieva*.

<sup>3</sup> Pliny 26. 5. 58: *nervus qui platys appellatur*.

<sup>4</sup> Körting, *Lateinisch-romanisches Wörterbuch*<sup>3</sup>, favors Storm's etymon *\*sub-sedicare*, which Meyer-Lübke, *REW*, rejects on phonetic grounds, preferring Michaelis' type *\*sessicare* (influenced by *sub*), — likewise a very irregular etymology.

## LINGUISTICS AND PHILOLOGY

GEORGE MELVILLE BOLLING

OHIO STATE UNIVERSITY

[Discussion of the terms 'linguistics' and 'philology' as used in American English.]

To the recently renewed discussion<sup>1</sup> of the terms 'linguistics' and 'philology' something may perhaps be added. The problem is not to stake out theoretical claims to portions of the field of scholarship,<sup>2</sup> but simply to recognize certain actually existing types of scholarly activity and apply to them labels in such a way as to minimize the risk of misunderstanding. Three such stimuli seem to me to be present in our environment, and I shall endeavor to suggest them without wishing to insist upon the desirability of the verbal descriptions employed.

A. The study of man's speech-habits.

B. The study of what his speech-habits have enabled man to accomplish, that is the study of civilization as a whole.<sup>3</sup>

C. The establishment and interpretation of the texts of such documents as need that treatment.

To B Sturtevant-Kent decline to react on the ground that 'no one scholar can cover so large a field'. The objection is true but not to the point. It assumes that our efforts must be individualistic rather than cooperative. If the issue were to be raised at all, it should rather be: Can a library to cover so large a field ever be accumulated? Even then the answer 'No' must be given, if we have in mind a library that can answer all possible questions. The same, however, is true of A and C as well; and the fact need not trouble us. Our studies are aspirations; that their

<sup>1</sup> E. H. Sturtevant and R. G. Kent, 'Linguistic Science and Classical Philology', *Classical Weekly* 22. 9-13; Holger Pedersen in a review of the publications of the Linguistic Society, *Litteris* 5. 148-59 (1928).

<sup>2</sup> For that reason I shall not discuss the 'relationship' between philology and linguistics. Viewed concretely it would mean the relationship as it exists in some individual or group, and that is ever-shifting.

<sup>3</sup> For I would go beyond Sturtevant-Kent and say that all, not practically all, civilization is the result of language.



ideals are unattainable is a guarantee of their permanence, and may best be regarded as a merit. The unwearying quest of Truth is better than the possession of Truth herself.<sup>3a</sup> What concerns us is the presence or absence of an ideal, not its attainability; and a serviceable test is the existence or lack of corresponding organizations<sup>4</sup> to aid and coordinate our efforts.

To A corresponds the LINGUISTIC SOCIETY of AMERICA. Here a tendency to subdivision has hardly as yet set in. This is due of course to the relative youth of the science, to the precariousness of its hold in this country, and not to any smallness of the field. The Modern Language Association, in spite of its name, belongs under another heading, so that the real exceptions seem to be *American Speech* (1925 on) and the *International Journal of American Linguistics* (1917 on). The exceptions are, as exceptions should be, significant: one is an international enterprise, and both deal with problems that ought to be of peculiar concern to dwellers in this country.

Corresponding to B we have the American Council of Learned Societies Devoted to Humanistic Studies. Here consciousness of unity came late (1919), and we may note as symptomatic the cumbersome title as contrasted with that of its counterpart the American Association for the Advancement of Science. The reason for this is clear: B comprises an overwhelming mass of material; the workers have attacked it eclectically and their eclecticism is reflected in the earlier organizations. Even so, the breadth of their interests is the noteworthy thing. Thus the American Philological Association started with an interest in language, but long ago this began to shift 'to the fields of literature and interpretation, to ancient life in general, and in particular to art and archaeology'.<sup>5</sup> If nevertheless, archaeology seems inadequately represented in this organization, it must be remembered that the Association has an interlocking membership and holds joint meetings with the Archaeological Institute of America. The latter too is far from limiting its interests as narrowly as its name might suggest. Witness the broad

<sup>3a</sup> The sentiment is Lessing's. In homelier form is the English saying:  
Always to court and never to wed  
Is the happiest life that ever was led.

<sup>4</sup> I shall limit myself to this country; and as I am thinking of pure, not applied, science, organizations such as the National Council of Teachers of English, the American Association of Teachers of Spanish, the American Association of Teachers of Italian do not come into consideration.

<sup>5</sup> F. G. Moore, 'A History of the Association', *TAPA* 50. 14 (1919).

programs of the schools it has founded and fostered: the American Schools of Classical Studies at Athens and in Rome, the American Schools of Oriental Research in Jerusalem and in Bagdad. I may cite also the American Oriental Society which is now seeking, in union with the Archaeological Institute and the Council of Learned Societies, for the foundation of a School of Indo-Iranian Research. The broad outlook of these endeavors prevents putting them under either A or C; and if we are to find a unity within them (and the fact of their organization constrains us to seek it), it can be done I think only by regarding them as eclectically chosen parts of B.

There seem to be two alternatives. We might with Leonard Bloomfield<sup>6</sup> make 'national culture' rather than human culture our highest unity. But, while it is true that our eclecticism often approximate or follow lines of national cleavage ('national' being interpreted most liberally), the organizations named reveal a consciousness of larger unities that forbids our stopping at the boundaries of nationality. So I should prefer to regard the study of the culture of any one nation as but a portion of the study of human culture. The second alternative would be to divide B into two parts, history and philology; but the distinctions attempted seem evanescent,<sup>7</sup> and it is admitted that they 'are never, and never should be absolute, only relative'. I should agree rather with Gercke:<sup>8</sup> so wird am Ende alle Philologie auch Geschichtsforschung, und alle historische Forschung ist im Grunde streng philologische Arbeit'.

To C, whether we consider it as a whole or have regard to possible (nationalistic) subdivision, there is no corresponding organization. Societies and periodicals devoted to the study of certain languages and literatures are not to be classed as such; for, as Pedersen points out, much more than C is included in the study of literature. Work of this type finds its home in the organizations mentioned under B, of which it forms, indeed, the core. Fortunately, however, the activity of C as a

<sup>6</sup> LANGUAGE 1. 4<sub>1</sub> (1925).

<sup>7</sup> Cf. Birt, 'Kritik u. Hermeneutik', *Muellers Hdb. d. klass. Altertumswiss.* 1. 3<sup>3</sup>. 4: 'Der Philologe behandelt das Gewesene, der Historiker das Geschehene'. Also Maurice Bloomfield, 'Philology', *Johns Hopkins Alumni Mag.* (an unfortunately out-of-the-way place) 14. 5 (1925): 'History draws this picture in outline that may be compared to a pen and ink drawing, philology lays on the colors. History is engaged with what may be called the more external, pragmatic, secular aspects of the human past; philology deals more with its inner, spiritual aspects.' The quotation in the text is from the same page.

<sup>8</sup> 'Methodik', *Einl. in d. Altertumswiss.* 1<sup>2</sup>. 35. The whole section 'Die Einheit der philologisch-historischen Methode' will repay close reading.

stimulus is not in question, since both Sturtevant-Kent and Pedersen react to it.

We have then the three stimuli A, B, C all present in our environment; the question is what verbal responses to them are to be regarded as the most adequate. The answer is conditioned, of course, by our past. We began with a British heritage: that means calling A 'philology', and responding to B and C only with phrases,<sup>9</sup> not with separate words. But, when the influence of Germany began to affect our University life, there came in the continental terminology: 'linguistics' for A, 'philology' for B, and 'philology' in a restricted sense (philology par excellence) for C. The usage, particularly of 'philology' as a response to B, was confined to certain narrow circles of professed (and, I think, chiefly classical) philologists, and was there perfectly familiar. To document this would be tedious rather than difficult; I may refer to the article by Maurice Bloomfield, already cited, and may quote also Gildersleeve, *Oscillations and Nutations of Philological Studies* 13: 'I would reiterate the confession of my faith in the formulae of my youth, my belief in the wider conception of philological work, in the necessity of bringing all our special investigations into relation with the whole body of philological truth, the life of the world, the life of humanity.' I might also allude to the fact that the American Philological Association felt no need to change its name with its shift of interests; 'philological' in its title merely took on instead the new meaning. Or, to give one more example: when a periodical 'devoted to research in the Languages, Literatures, History, and Life of Classical Antiquity' was founded, its editors named it *Classical Philology*. The use remained, however, esoteric, the mark of a professional dialect; not even the official terminology of our Universities was affected by it. The most surprising thing to me in the whole discussion is the way in which the fact that 'philology' has been used as a response to B both in continental Europe and in this country, is ignored both by Pedersen and by Sturtevant-Kent.

The inconveniences attendant upon the habit of calling A 'philology' are familiar and need not be rehearsed; but a recent illustration given by Pedersen will bear repetition. The organizers of the 'premier congrès international de linguistes' wished to issue their first circular in English. British English offered nothing but the manifestly impossible 'Congress of Philologists', and so the choice was limited to French, German, or the

<sup>9</sup> The practical difficulty of forming derivatives from such phrases is properly stressed by Pedersen.



good American 'First International Congress of Linguists', which was actually chosen. As another I may add from a different source a story now going the rounds. A famous British press (it need not here be named) undertook to publish a translation of Pedersen's *Sprogvidenskab*; but, most regrettably, the undertaking came to naught. The rock on which it shattered was the insistence of the press that A be called 'philology', even where it was being explained that it was not philology. *Se non fosse vero, sarebbe ben trovato.*

A recent consequence has been a tendency in this country to insist that the better response to A is 'linguistics'. The usage has gained ground rapidly; though, as Pedersen shows, even the contributors to *LANGUAGE* have not followed it with perfect consistency. The inconsistency, however, is only half as great as Pedersen believes; for he had missed the fine points very neatly made by Sapir (1.45<sub>2</sub>) and Collitz (2.10) in using philologist not linguist.<sup>10</sup> The usage seems likely to become established,<sup>11</sup> and we are all agreed that there is every reason to wish for that outcome. Pedersen seems to think that we have been over-cautious in our use, not so much of 'linguistics' itself but of 'linguist' and 'linguistic', especially in the more popular of our writings. He has thus indicated a way in which we can help on the desired result: usage alone can establish usage. It will help also, I may add, if continental linguists in writing English will (they do not always as yet) avoid this Briticism.

The rest of the problem is more difficult. The trouble is not that one form is serving as a response to two stimuli; such a situation is most normal, and of itself need cause no embarrassment. Rather the difficulty is that there seems to be no prospect of 'philology' as a response to B gaining a firmer foothold. After fifty years there are no signs of it. On the contrary even those closest to philology (C) avoid the usage: the Archaeological Institute, for instance, did not name its schools Schools of Classical or Oriental Philology, nor have we an American Council of Philological Societies. One feels at once that there was no likelihood of such titles being chosen. Not that there was risk of philology being confounded with linguistics: that contributed no doubt, but the important factor was that the specialized meaning of philology (C) was

<sup>10</sup> The other passages are Esper, *MONOGR.* 1. 5; Espinosa 3. 20<sub>1</sub>.

<sup>11</sup> Official dialects change slowly. If that of our Universities comes to preserve a fossilized meaning of 'philology', the fact may be added to our collections of similar curios.

prominent enough to render its use in the broader sense unattractive. That again is a normal linguistic process, and it is what seems likely to happen in this case. Pedersen's attitude may indicate that it is taking place already on the continent; Sturtevant and Kent are moving in the same direction.

But then we are left without a response to B, and that means the risk of becoming irresponsible to that stimulus, of losing our broadest outlook upon the purpose of our studies. It is a risk not to be incurred lightly, and yet there seems to be no alternative; for no substitute for philology in this sense seems available. History is likewise over-specialized for the purpose, Anthropology too is preempted; Humanist and Humanities are too rich in their connotations, and the latter besides is handicapped by its ending. Perhaps some one may hit upon the right term. Until he does we must steer our course as best we can between Scylla and Charybdis.

## BOOK REVIEWS

**The Vowel: its Physiological Mechanism as shown by the X-Ray.** Pp. xliv + 353. By G. OSCAR RUSSELL. Columbus: The Ohio State University Press, 1928.

A wonderful piece of laboratory work, but a most vexatious book! Such will be the impression of every understanding reader of Professor Russell's treatise; but it is to be feared that some will not penetrate beneath the awkward style, the poor arrangement (which distributes the figures through the text without bringing them near to the points where they are needed), and the tiresome repetitions. But the important thing is that our author knows his subject as few men do, and that he puts before us concrete and well attested evidence for his statements.

Although a great deal of sound and careful work has been done in phonetics, much of which is summarized in the introductory portion of this volume (1-43), satisfactory observation of the throat and the back part of the mouth during speech has until recently been impossible, and this fact has left a clear field for the theoretic systematizers. Some of their guesses have seemed plausible to linguists, and have thus gained wide currency in books on grammar and among teachers of the modern languages.

For example, many a grammarian has pinned his faith to the dogma that the characteristic quality of the several vowels is a function of the position of the upper surface of the tongue, and that the tongue positions of the several vowels is represented by the familiar vowel-triangle, thus:

i	u	As Russell points out, some of the best phoneticians have
e	o	always opposed this generalization, and evidence against its
a		validity has gradually been accumulating, so that (133) as

long ago as 1914 Viëtor, the chief proponent of it, acknowledged that it was largely erroneous. Nevertheless the vowel triangle and its implications about tongue-position still form the very basis of the system of phonetics generally received among linguists. To us, therefore, it is a serious shock to be told that there is no evidence of weight behind our conception of the vowel triangle, and that a great mass of evidence dis-

proves it. And yet the new book will not seem revolutionary to those who have followed the best experimental work in phonetics. It contains far more evidence on the workings of the hidden vocal organs than we had before, but enough was already known to establish several of Russell's main conclusions.

The chief advances here made are traceable to several improvements in laboratory technique. (1) Russell has invented a marvelous device, which he calls a laryngo-periskop, for observing the action of the vocal cords and the walls of the larynx with a minimum of interference with the normal functioning of the speech organs. Several photographs made with this instrument are included in the book, and the reviewer can testify to its extraordinary value in actual use. The book does not include a description of it.

(2) Russell has also improved the technique for taking x-ray pictures of the tongue and other soft parts of the mouth during speech. An elaborate description of this technique is given (44-88), and it is conclusively defended against the criticisms that have been made by various scholars. A number of photographs made by this process are published here, and many more will shortly appear in the author's *Speech and Voice*, to be published by Macmillan. Russell makes his x-ray pictures with such care that on their basis he can calculate the capacity of the oral cavity and of its several parts. There are included in the present volume 129 such calculations for vowel sounds of various languages as spoken by various subjects.

(3) The author has also an improved technique for making palatograms, by which results are more accurate and are obtained more rapidly than heretofore. He also has an ingenious device for recording at the same time the configuration of the roof of the mouth. 139 palatograms are published here.

As already suggested the evidence demolishes the theory that vowel quality is solely or even chiefly dependent upon the position of the surface of the tongue. One and the same vowel may be and frequently is produced with the front part of the tongue in various positions, and some vowels normally present tongue-positions unlike those we have hitherto assumed. For example, [æ] is usually produced with the tongue arched toward the soft palate, and there is no observable tendency for [ɪ] to have a higher tongue-position than [e].

Russell's numerous calculations of the volume of the mouth cavities do not support any of the theories according to which the character of the vowels depends upon cavity-tones.

Russell puts his positive results with great caution, and emphasizes at every turn the need for further investigation; but his contributions are numerous and important. Here are several of interest to linguists. (1—pp. 92f., 165f.). In the production of the high-pitched, 'front' vowels the soft walls of the larynx are drawn away from the vocal cords, giving the sound uninterrupted passage, while for the low-pitched 'back' vowels, [u], [o], and [a], the epiglottis and the root of the tongue are moved back until, in the case of [a], they nearly close the aperture through which the voice must pass. The effect of putting these soft surfaces close above the vocal cords is to dampen out the higher partials, while the lack of such dampening in the front vowels produces their clear, ringing, metallic quality.

(2—pp. 88, 115f.). In producing the vowels [i] and [e], the velum is lifted and drawn backward much more than in producing [ɪ] and [ɛ]. This articulation has the effect of drawing the soft surfaces of the velum away from the path along which the voice must travel and at the same time it tenses the surfaces and reduces their dampening effect. This seems to be at least partly responsible for the fact that [i] and [e] are distinguished from the neighboring sounds precisely in their more ringing, metallic quality. There is a similar movement of the velum in producing [ə] and [ʊ], and Russell includes the former in his remarks on [i] and [e]. This would suggest a higher pitch and clearer tone in [ə] than in its neighbors, [a] and [ɔ]; but this is apparently counteracted, at least in English, by the fact (103) that [ə] suffers more dampening in the larynx than most other vowels. It would be interesting to compare [u] and [ʊ] in this respect; but Russell gives no figures for the movement of the velum in producing the latter vowel.

(3—p. 278 and *passim*). Neither in the frontal cavity of the mouth nor in the larynx is it possible to postulate any regular progression of physiological conformation as we pass from one vowel to its acoustic neighbors. Perhaps a changed articulation in one part of the oral passage is compensated by an alteration elsewhere, and perhaps the vowel quality is partly produced by the vocal cords themselves; at any rate, we cannot construct any such schematic correspondence between vowel sound and physiological position as the authors of the vowel triangle have evolved from pure imagination. Consequently the only legitimate classification of vowels at present is one based upon their acoustic quality.

A perusal of this book should make it clear to all that phonetics is to be grouped with the physical sciences. It embraces parts of physics,



physiology, and psychology; it demands a knowledge of all of these, and the laboratory method of study is as essential to it as to them. A phonetician who performs no experiments is like a physicist without a laboratory; and a 'practical' phonetician whose training is merely philological is little better than a 'practical' nurse. I am aware that this is a hard saying; there are dozens of courses in phonetics in the United States that must be called shams, and that ought to be discontinued until a properly trained instructor can be obtained—and very few such are to be had.

E. H. STURTEVANT

**Alphabete und Schriftzeichen des Morgen- und des Abendlandes;** zum allgemeinen Gebrauch, mit besonderer Berücksichtigung des Buchgewerbes. Pp. 86. Compiled by the Reichsdruckerei in collaboration with language specialists. Berlin: Reichsdruckerei, 1924.

**Lautzeichen und ihre Verwendung in verschiedenen Sprachgebieten.** Pp. 116. Compiled by specialists and edited by M. HEEPE. Berlin: Reichsdruckerei, 1928.

The first of these volumes was prepared primarily for the printers, but will be of interest to the linguists as well. The characters of sixty-odd alphabets are given with their names, a transcription in Latin characters, and, in many cases, their precise phonetic value. The phonetic notation used for this purpose is that of the 'Instructions for the Alphabetic Catalogs of the Prussian Libraries', which, rather unfortunately, is not presented as a system either in this or the companion volume, and is little known outside of Germany. Brief but excellent notes are given with each alphabet or family of alphabets regarding its general character, origin, history, and use past and present. Moreover, references to the more important grammars, dictionaries, and treatises are given, where further information can be found.

Most of the astounding wealth of type was available in the *Reichsdruckerei*. The Avestan, Armenian cursive, Ossetic antiqua, and Wulfil's Gothic were loaned by other printers; the Turkish Ryk'a, the Devanagari, and Javanese were newly acquired; and the Manichean (related to the Estrangela) and the Uigurian (note the conflicting statements regarding its origin on pages 15 and 16), which had never before appeared in print, were especially cut under the direction of v. Le Coq.

The companion volume on phonetic symbols presents the numerous systems of phonetic notation that have been in use within the past fifty years. Altho each author presents his subject matter in his own way,



there is a general agreement in aims, which are: (1) To present the systems of notation accurately and without comment on their relative merits; (2) to define the phonetic value of the symbols, when needed, either by describing the articulation of the sound, by referring to the sounds of more widely known languages, or by adding the symbols of a better known system of notation as that of the IPA; (3) to give some idea of the extent to which the various systems have been used; and (4) to supply brief bibliographies. Unfortunately items (3) and (4) are omitted in some cases.

The systems intended for world-wide use are treated first: the Lepsius alphabet and the Endemann-Meinhof version of it, by C. Meinhof; the *Anthropos* alphabet, adopted in 1907 and revised in 1924, by P. W. Schmidt; Lundell's system, 1905; J. Forchhammer's 'Weltlautschrift', 1924, by the author; the system and the principles of the IPA, by D. Jones (the most recent authoritative statement of the matter); and the 'Proposals of the Copenhagen Conference', 1925 (which accomplished so little), by M. Heepe. No statements are made regarding the extent to which these world alphabets have been in actual use, and yet they would be as welcome here as in the remainder of the compilation.

There follow the systems of phonetic notation used in the various languages or language families: the German, presented by H. Neumann; the Romanic, by W. Paulyn; the Slavic, by E. Lewy (wretched in treatment and style); the Finno-Ugrian and the Turkish, by E. Lewy; the Chinese and the Burmese, by W. Simon; and the American Indian Languages, by K. T. Preuss.

It will be noticed that the phonetic notations of reconstructed languages such as Indo-European and Primitive Germanic are not treated. Nor is the treatment of the phonetic notations of the living languages complete. For while the 13 systems used in Romanic periodicals, linguistic atlases, dictionaries, grammars, and dialect studies, and the 14 systems used in similar works dealing with German are presented with great care and thoroughness, English and the Scandinavian languages are omitted altogether, probably because they are usually written in the IPA alphabet by continental scholars. But surely the phonetic notations of the *Oxford English Dictionary*, Wright's *English Dialect Dictionary*, Ellis' *Early English Pronunciation*, and that of the (American) *Standard Dictionary*, which is a modified form of the IPA alphabet endorsed by the MLA and the AEA, should have been included.

The two compilations are unique, and printers, linguists, and librarians will find in them an extraordinary wealth of accurate, reliable, and readily accessible information.

HANS KURATH

**Esquisse d'une Histoire de la Langue Latine.** Pp. viii + 287. By A. MEILLET. Paris: Librairie Hachette, 1928.

Professor Meillet has given us a notable outline of the history of the Latin Language, in an introduction and eleven chapters: De l'indo-européen au latin; Origine dialectale; L'italo-celtique; L'italique; Les parlers latins; La langue de Rome au III<sup>e</sup> siècle av. J.-C.; Structure du latin; L'hellénisation de la culture romaine; L'extension du latin; Les changements du latin à l'époque impériale; Persistance du latin écrit. This is followed by a brief bibliography.

According to the *avertissement* (vii-viii), the volume is intended both for readers who are linguists and for readers who are not linguists, and the latter are advised to omit the sections containing the technical linguistic data; these data, says the author, could not be omitted without reducing a demonstration to mere vague generalities. We may grant that the author is right in this; but the reading of the volume leaves the feeling that a very considerable acquaintance with linguistics is needed by him who would get real profit from the book. This is true more of the earlier chapters than of the later ones, which deal with the language in its normal form; but a novice at linguistics would, I fear, flounder around without making great progress.

Yet there are certain topics which are dealt with in a manner which should be illuminating even to the but slightly initiated: I note, among others, the clear demonstration of the illusory nature of the arguments for a closer relation between Latin and Greek (37-40), for this fallacy still circulates where it should not. The pages on Latin borrowings from non-Indo-European languages (82-7) should be a warning to ingenious etymologists. The account of expressive gemination of consonants (166-9) and that of the Italic extension of the *a* vowel (169-70) are important, though some of the details may need modification. The exposition of substrates in the development of the Romance languages (231-4) is good and convincing, and the chapter on the 'persistance du latin écrit' should be read and weighed by every person who doubts the value of Latin: it is a pleasure to record that Latin has no more doughty champion than Professor Meillet.

There are however matters on which the reviewer disagrees with the

views expressed in this volume. For example, Professor Meillet states as though accepted fact the view that the IE ending of the accusative singular varied between *n* and *m* (57-8), whereas the *-n* can be derived phonetically from *-m*, so that the assumption of an IE variation is quite gratuitous. The same objection to a genitive plural in *-ōn* (60 inf.) may be made. The Latin and Celtic genitive in *-ī* of *o*-stems is said (28. 23) to be from IE *-ī*; this is the customary view, but Ehrlich, *Unters. ū. d. Nat. d. gr. Betonung* 66 ff., proved that it might be an original locative in *-ei* (cf. also LANG, 1.105). That the dative of consonant-stems ended in IE *-ei* (61.5), and not in *-ai*, seems to me insufficiently established by the Oscan dative in *-ei*; it is true that this is interlocked with the view taken of the *o*-stem genitive. But especially I cannot follow when Professor Meillet discards the theory of an initial accent (primitive Italo-Celtic or primitive Italic) which produced weakening or syncope of short vowels and diphthongs in medial and final syllables, and attributes the persistence of the vowels of the initial syllable to 'la situation singulière de la syllable initiale' (56.6; cf. 55-6, 98, 129, 133-40, 241-2); this is a topic which I have treated briefly elsewhere, as in *Revue des Études Latines* 3. 209-10, and I hope to recur to it again where I can treat it more adequately than in the space permitted by a review. It is unfortunate, in these and similar matters, and in a work of semi-popularization (viii. 3-7), to set forth dogmatic statements where some other reputable scholars will emphatically not agree; a footnote will easily make known the divergence of opinions.

I pass now to the consideration of details. The initial *f* of Eng. *four* is said to be due to assimilation to medial *w* of the older form, cf. Gothic *fidwor* (18 inf.); but is really due to the influence of the initial of *five*. That Oscan-Umbrian has generalized the passive endings in *-ter* (52 med.) while Latin has only those in *-tur*, is partially wrong; Oscan has only *-ter*, but Umbrian has primary *-ter*, secondary *-tur* (Buck, *O-U Gram.* §238). The stem *viro-* 'man' is not limited to Latin (53 med.), but occurs eleven times in the Umbrian Iguvine Tables. The Latin verb *horior* 'j'engage à' is cited (54. 3) without hint that it is found only in glosses from Ennius; perhaps however *horior* is a misprint for *hortor*. The transliterated Greek *Massalia* (55.12) needs the sign of vowel length on the final *a*; but in this book the sign of vowel length is often omitted. As in this citation, Greek is commonly transliterated, but not on pages 214-7. The account of the development of consonant + *w* in Italic dialects (57. 7-12) is too brief either for clearness or for accuracy.

The derivation of *ut*, *aliuta*, *utique* (58 inf.) is in detail subject to dispute. The establishment of *-c* as a final sound should not be attributed solely to *ac* and *nec* (59. 1), but also to the common word *lac*, and *hocce* would be clearer if said to come from *\*hod-ce* rather than from *hot-ce* (59. 3). There is no reason to suggest an alternative to locative *-i* as the origin of the ablative *-e* in consonantal stems (60. 3-4). An intermediate *\*quubei* (63 sup.) is unnecessary. I cannot believe in original *i* in *hic* (63 inf.); if *i* were original, we should have neuter *\*hid* or *\*hid-ce*, not *\*hod-ce*, cf. *quis quid*, *is id*. The verb-type of *finire* also is found in Oscan-Umbrian; this is denied by Meillet (66 med.). It is true that the Cippus Abellanus is in oratio obliqua (66 inf.), but all the main verbs are in the subjunctive; the accusative and infinitive are found in subordinate indirect statement in this and in the Tabula Bantina. The agreement of Oscan-Umbrian with Latin *prae pro pro* is said to be unique (67 inf.), but we may compare Greek *παρὰ πρό πρω-*. With the *s-* of *super*, said to be without testimony outside Italic (ibid.), it is fair to compare Greek *ἐξ-ὑπερ-θεν*. The form *quum* (69. 14) for *quom* is non-existent except as a late writing, and should not be used. Umbrian *pisi-pum-pe* (69. 16) should not be in italics, but in spaced roman, to show that it is from a text in the native alphabet. The non-rhotacized *s* of Umbrian *asā-* 'ara' is said to be due to expressive gemination (71. 12), but may rather be a ritual archaism, like *kebu* and *cehefi*, with unassibilated *k* before a palatal vowel.

That *miser* is from a non-IE language (85 inf.) seems doubtful in view of the fairly obvious ablaut relation to the root of *maestus maereō*. Latin *argentum* (87. 9) is said to have no Greek correspondent; how about *ἀργυρος*? The suffix differs, but the root is the same. The account of *-ln-* in *balneum* (93 sup.) is quite distorted: the *-ln-* here develops through syncope, precisely as in *ulna* and perhaps as in *vulnus*, but the reduction to *\*baneum* (I find no evidence for the *ā* which Meillet posits) is a late phenomenon, after the post-consonantal *e* had become *y*. In *\*balnyum* the *-ln-* was reduced to *-n-* before the *-y-*; cf. Körting, *Lat.-rom. Wrth.*<sup>3</sup>, no. 1182. The *-oe-* in *poena* and *moenia* (93 med.) is properly explained by Sommer, *Hdb.*<sup>2</sup> 76-7. The development of *g<sup>w</sup>* to *b* in some local dialect of Latium (101. 8-10) is hardly admissible, since such development is a hallmark of Oscan-Umbrian. The *h*-less *ānser* for *\*hanser* may not be merely rustic (101 med.), but by association with *anas*: cf. LANG. 2. 185. The consonants in primitive IE are said to be implosive when final in the phrase (128. 23); the evidence for and the necessity of this conclusion escape me utterly. *Etiam* does not have



to be *\*eti-jam*, retaining original final of prior element (136 sup.), but may be *et-jam*, in which the post-consonantal *-y-* becomes *-i-*, as in *quon-iam* and *medius*. The change of *-im* to *-em* in the accusative of *i*-stems is said to be phonetic (137 sup.); this is Meillet's own theory, set forth in his *Innovations*, but is refuted by *statim*, *partim*, and especially *adfati*m. The intermediate stage *\*cleudō* should be given for clearness, between *claudō* and *\*ex-cloudō exclūdō* (137 inf.). It is hard to believe that *l* was velar in Latin before *e*, which was and is a palatal vowel, despite the peculiar nature of the evidence (138. 10). Meillet derives Latin *oleum* from Greek *ἐλαιον*: *\*elaiwom* *\*oleiwom* *\*oleyom* *oleum* (138 med.); it was rather *\*elaiwom* *\*olaiwom* *\*olēwom* *\*olēom* *\*oleom* *oleum*. I do not believe that *-ri-* interconsonantal in the initial syllable loses its *-i-* phonetically (139 inf.); cf. LANG. 3. 266, 271.

*Quinque* (140. 16) should have *-ī-*. The *esed* of the Forum Stele may be for *erit* (143. 1), but it may equally well stand for *eset*, and therefore not be in point as a form where rhotacism has not yet taken place. On the variation of *d* and *l* (143. 7), one may better accept Conway's view, modified by Sommer's (*Hdb.*<sup>2</sup> 176-7). Dual *uses*, it is true, had disappeared in pre-Latin times (146 inf.), but sporadic dual *forms* still remain: *duō ambō octō vīgintī*. *Tulī* is said to be perfect both of *tollō* and of *ferō* (152 med.); it is the formal perfect of *tollō* and the semantic perfect of *ferō*, while *sustulī* is the semantic perfect of *tollō*. That the IE word for 'foot' had the *o*-grade in nominative and accusative singular, as in Doric Greek *πῶς πόδα*, and the *e*-vocalism elsewhere, as in *pedis pedē pede* (160 med.), does not convince me; I see rather *e*-vocalism in uncompounded uses, and *o*-vocalism in compounds, such as *τρι-πους*. The same may be said of *\*senti* *\*sonti* 'they are' (Doric *ἐντι*, Oscan *set*, Gothic *sind*, but Latin *sunt*); Meillet seems to hold a different view (4-5, 65). The zero-grade of *-ti-ōn-* is not *-ti-n-* (164. 2), but *-tīn-*. *Siccus* is hardly an example of expressive gemination (167. 21), but is clearly syncopated from *\*siti-kos*, to *sitis* 'thirst'.

Meillet explains the *praedotiunt* of Festus (*praedopiont* 205 M, 244 ThdP), glossed by *praeoptant*, as doubtless for *praedopiunt* (*praedopiunt* was suggested by Müller 205 n.), in which one sees the old *\*opiō* from which come Latin *optiō* and *optāre* (180 med); but *praedotiunt* comes between two words beginning with *pro-*, and should be corrected to *prodopiont*, since there is no warrant for *praed* in *praed-opiunt*: *prae* had no final *d*. In reference to the language of Plautus (180-7), Meillet rather fails to emphasize the use of strange or nonce words for humorous effect; such words do not of necessity come from popular speech. En-



nius could not have written *sophiam* (194 inf.), but would have written *sopiam*; the proper spelling is indicated however in *drac(h)uman* (201. 9). If in Ennius's epitaph (198 inf.) the original text *dacrumis decoret* be restored for *lacrumis decoret*, the alliteration becomes real and not merely 'à peine indiquée'. The severe strictures on Cicero as man and statesman (206) need perhaps the correction to be found in Rolfe's *Cicero* (in the series *Our Debt to Greece and Rome*); but what is here said in praise of Cicero as adapter and transmitter of Hellenic civilization to the Roman world and its modern successors, is most admirably put. The transliteration *dia-logizzomai* (214 inf.) doubtless uses -zz- to show the long consonant, but this is a questionable policy to follow in transliterating languages with a standardized orthography.

Vergil (discussed at length from 217 on) used all the metrical licenses of the Greek poets, but in the long final of such a word as *tondebāt* (219 med.), I see rather a syllabic division after the word in place of the carrying over of the consonant (normal division, according to Latin grammarians, was *prī mu sa bō rīs*), and not a retention of original length: the final syllable of *canit*, which never had a long vowel at any time in its history, is long in *Aen.* 7. 398. Meillet overdoes the interpretation of the epithet in taking *maternas agnoscit aves*, *Aen.* 6. 193, to mean 'il reconnaît sa mère aux oiseaux qui lui appartiennent' (224 inf.); for all that Aeneas recognizes is the doves which belong especially to his mother, whose actual presence is nowhere indicated: she works only through the doves as her agents. The statement that *abiete*, with four shorts, could enter the meter only by an elision (225 inf.), is not correct, since after an elision three shorts would still be left, an equally unusable combination. That the syllable bearing the accent is treated exactly like unaccented syllables, both in Greek and in Latin (241-2), is true only of the earliest historic accent in both languages; in later times, in both languages, the unaccented syllables were subject to syncope and vowel weakenings. The coincidence in the Romance dialects of Latin close *ē* and open *ĭ* and close *ō* and open *ŭ* is said to produce in those Romance dialects a system of five vowels only, as in ancient Latin (247 sup.); but Latin had a system of nine vowels (246 inf.), and Romance dialects have a system of seven (*a*, open *e*, close *e*, *i*, open *o*, close *o*, *u*)—it is only the graphic representation which in each consists of five letters (not sounds).

The development of antevocalic -*ti*- and -*di*- in late Latin (250-1) was rather a double one, cf. *Carnoy, Trans. Am. Phil. Assn.* 47. 145-52. The Latin *v* (*u* consonant) is said to have become the labio-dental

spirant (251 inf.), this is not true of the entire Romance field, for in some dialects of South Italy and in parts of the Iberian peninsula it is still bilabial. The German *w* is said to be a labio-dental *v* (252. 7), but this holds for only part of the territory; it is elsewhere a bilabial spirant. On the fate of Latin final *s* in Romance (253 sup.), one should note that it is still sounded in Spanish and Portuguese, that it is now graphic only in French unless sounded in liaison, and that it has been changed or lost in Italian. The prothetic vowel before *sc- sp- st-* is indeed general (253 inf.), but not universal in Romance, for in Italian it occurs only after consonantal finals. The passive is rendered in Romance not merely by the auxiliary *être* (265. 22), but by other auxiliaries, notably in Italian. The disappearance of the Latin neuter gender in Romance is a more complex matter than the account (269 sup.) indicates; in passing, be it noted that the three genders of English, apportioned as they are to male living beings, feminine living beings, and lifeless things (and animals whose sex is of no consequence) respectively, is much more logical and more simple than the two grammatical genders of Romance languages.

There are some misprints. A broken *d* at 21. 12 and 39. 35 becomes *a*. At 21. 14, *dceïrem* should be *dicerem*; 57. 25, *állontai* should be *hállontai*; 58. 18, *omnino*, as a gloss, should be in quotation marks; 100. 8, *\*dó* should be *\*dh*; 100. 10, *\*gredh-* should be *\*yudh-*; 140. 23, *l'o* should be *l'a*; 172. 5, *nicleō* should be *uideō*; 172. 29, *ce* should be *ces*; 173. 19, *atin* should be *latin*; 213. 14, *definionis* should be *defixionis*; 224. 27, *agnouit* should be *agnoscit*. Words are run together without separation, at 119. 2, 175. 28, 274. 26.

Withal, the picture of the Latin language which Professor Meillet has given us is essentially accurate (though I must still except the matter of the history of the accent) and stimulating to the lover of language. I would end this review by quoting a few of Professor Meillet's splendid summations: 'Le grec et le latin sont les deux plus grandes réussites du monde indo-européen' (vii). After the time of the early prose historians, Latin was 'une langue arrêtée, langue d'hommes politiques et d'historiens. Pour en faire une langue complète de civilisation, il restait à y verser les formes de la rhétorique grecque, à lui faire exprimer, d'une façon idiomatique, les idées de la pensée grecque: ç'a été le rôle de la littérature sérieuse' (190). 'Les Grecs n'ont jamais su dépasser la frange maritime des pays où ils s'installaient. C'est Rome qui, en adaptant la pensée grecque à l'usage d'hommes cultivés qui voulaient ignorer la technique, a fait de tout l'Occident de l'Europe un domaine de

civilisation fondé sur les idées générales et la pensée retionelle de type hellénique' (208-9). 'La partie intellectuelle de toutes les langues littéraires de l'Europe occidentale est nourrie de latin. L'Europe et l'Amérique pourraient oublier l'unité d'origine de leur culture—et elles ne le feraient pas sans dommage—; leurs langues de civilisation, par tout ce qu'elles ont d'unité avouée ou dissimulée, continueraient de témoigner que, derrière les diversités dont on se fait gloire et dont on s'exagère la valeur, demeure, parfois peu visible, souvent oublié, mais agissant, le puissant bienfait de l'unité latine' (284).

ROLAND G. KENT

**A Grammar of the Portuguese Language.** Pp. 669. By JOSEPH DUNN. Washington, D. C.: National Capital Press. 1928.

This book is a thorough reference grammar of modern Portuguese. Although Old Portuguese forms are occasionally discussed, no attempt is made at a general historical treatment. Not only is the language of the educated Portuguese presented, but a great amount of space is devoted to the peculiarities of the various dialects and of the language of Brazil. Because of the frequent similarity between obsolete and dialectal forms, this material on the dialects and on the colloquial idiom makes the book particularly valuable to the linguist interested in a combined geographic and historical study of the language.

The reformed orthography is adopted with the latest amendments. The quality of all tonic vowels is indicated throughout the book and practically all of the first one hundred pages are devoted to pronunciation, for which the symbols of the International Phonetic Association are used with slight adaptations.

Every item treated is abundantly illustrated with sentences aptly chosen and rich in idiom. The amount of detail is amazing. Many important points of grammar are thoroughly studied which have been but summarily touched upon in previous grammars. This very completeness makes it necessary to point out the following shortcoming. An exact rule for the use of *ser* and *estar* with a past participle of adjectival force has never been formulated. The rule given in §436 of the present volume, which is the same as the rule usually given for Spanish, is inadequate for Portuguese. It would not explain the illustration *a casa é construída de tijolos*, for this sentence does not mean 'the house is being built with bricks.' The following sentence from §435 is another case in point: *a cabeça é coberta de cabelo* 'the head is covered with hair.' Comparing this sentence with the following, also given in §435: *a*

*cabeça está coberta com um chapéu*, 'the head is covered with a hat'. It would seem that the following rule might be proposed: With the past participle used as an adjective, either *ser* or *estar* is used according as a characteristic or an accidental quality or condition is predicated. This distinction is particularly notable because in Spanish, with the past participle used as an adjective, *estar* is always required, as *sein* is in German.

Unfortunately, this book, one of the best foreign language grammars ever written in English, cannot be purchased. Only one thousand copies were printed, to be distributed to libraries, etc. Many students and teachers have expressed a sincere eagerness to possess a copy and it is earnestly hoped that the Hispanic Society can arrange for the publication of another edition for sale.

EDWIN B. WILLIAMS

The *Sprach- und Sachatlas Italiens und der Südschweiz*, under the editorship of K. Jaberg and J. Jud, is announced by the publishing house of Ringier, in Zofingen (Switzerland); the first volume should appear by the time of this notice.

The enterprise extends the linguistic knowledge of the Romanic territory after the fashion of Gilliéron's *Atlas linguistique de la France* and the similar *Atlas* for the Catalan area by Griéra. The material has been gathered from four hundred localities in the Italian and Rhaetian speaking territory, by P. Scheuermeier, G. Rohlf, and M. L. Wagner, and has been arranged in cartographic form by the editors.

The undertaking was made possible only by subventions of about 100,000 Swiss francs from institutions and individuals. With the first volume will appear also an introductory volume; and after 1928 one volume will appear annually until the entire eight volumes have appeared. Each volume will contain about four hundred charts showing the terms used locally for the same number of objects or ideas. The time for advance subscription has now passed, and the regular rates are in force: from 220 to 245 Swiss francs per volume, according to whether bound or in portfolio, and whether printed on one or both sides of the charts, and 15 francs for the introductory volume. The work is monumental and fundamental for scientific study and research in its field.

A more adequate account, by the editors of the *Atlas*, is to be found in the *Romanic Review* 14. 249-64 (1923).

## NOTES AND PERSONALIA

THE SEVENTEENTH INTERNATIONAL CONGRESS OF ORIENTALISTS was held at Oxford, England, in the week of August 27, 1928, the first such Congress since that at Athens in 1912. One of the delegates of the Linguistic Society, Dr. A. R. Nykl, sends in a report from which the following account is taken.

The Congress had over 700 members, including 215 delegates representing the governments, universities, academies, and learned societies of Abyssinia, Austria, Belgium, the British Empire, China, Czechoslovakia, Denmark, Egypt, France, Germany, Holland, Hungary, Italy, Japan, Jugo-Slavia, Latvia, Norway, Persia, Poland, Portugal, Russia, Sweden, Switzerland, Syria, Turkey, the United States of America, the Vatican. Among the delegates from the United States who were present at the various meetings were Professors W. F. Albright, H. H. Bender, W. N. Brown, A. V. W. Jackson, A. R. Nykl. Professors Bender, Brown and Nykl officially represented the Linguistic Society of America as delegates, and Professor Brown conveyed the greetings of the Society to the Congress.

The Congress was inaugurated on August 27 by Lord Chalmers, and sessions were held on the next four days for the presentations of papers, in nine sections comprising the entire Oriental field. The hope was expressed that the regular triennial meetings could in future be held without interruption, and the invitation of the Government of Holland to hold the Eighteenth Congress at Leyden was accepted.

THE LINGUISTIC SOCIETY OF INDIA was formally organized during the sessions of the Fifth All-India Oriental Congress, held at Lahore, November 19 to 22, 1928.

The purposes of the Society are primarily two: first, the study of the languages of India, ancient and modern, including the recording and study of hitherto unstudied dialects; second, the modernization of the teaching of languages in India. The Society plans to publish a bi-monthly bulletin consisting of notes, queries, and reviews; it will publish also occasional monographs containing results of research considered to be of permanent value. Among the founders are A. C. Woolner,



Vice-Chancellor of the Panjab University; S. K. Chatterjee; Siddhesvar Varma; J. S. Taraporewala.

Professor W. N. Brown, of the University of Pennsylvania, conveyed the greetings of the Linguistic Society of America to the new Society.

A CONFERENCE ON CHINESE STUDIES was held in New York on December 1 under the auspices of the American Council of Learned Societies.

About forty scholars were in attendance, including nearly all Sinologists of prominence in the United States. Among them were the following members of the Linguistic Society: Prof. G. H. Danton of Oberlin College, who had taken a large part in preparing for the work of the conference, Dr. Berthold Laufer of the Field Museum, Chicago, and Prof. E. H. Sturtevant, Director of the Linguistic Institute.

The meeting was very successful, and it is a pleasure to note that arrangements were made for a continuation of its work. Fuller details may be found in Bulletin No. 9 of the Council of Learned Societies.

THE PREMIER CONGRÈS DES PHILOLOGUES SLAVES will be held in Prague, October 6 to 13, 1929, in commemoration of the centenary of the death of Joseph Dobrovský, the great pioneer in Slavonic philology, who was located in Prague for about twenty-five years before his death.

The communications may be concerned with any phase of Slavonic language and literature, with the teaching of Slavonic languages, and especially with the influence of Dobrovský in the development of philological-historical studies in the different Slavonic countries. Professor M. Murko is President of the Committee of Organization, and Professor Jiří Horák is the Secretary. Inquiries should be addressed in care of the Slovanský Seminář, Břehova 5, Prague V. Czecho-Slovakia.

UNDER THE JOINT AUSPICES of the Department of Anthropology of the University of Washington, and the Committee on Research in American Indian Languages, the following field researches were pursued in 1928: by Dr. Thelma Adamson, Associate in Anthropology at the University of Washington, a trip to secure data on the dialect of Salish formerly spoken along the Nootsak River of Northwestern Washington; by Dr. Melville Jacobs, Associate in Anthropology at the same University, a trip for the study of Santian Kalapuya, and another for studies of Yonkalla Salapuya and Molale, dialects of Western Oregon. The principal object of these studies was to secure grammatical material.

When possible, connected speech in the form of mythological and ethnological dictations also was secured.

IN HONOR OF HENRY ALFRED TODD, a Signer of the Call and a Foundation Member of the LINGUISTIC SOCIETY, there will be published by the Columbia University Press in 1929 two volumes entitled *The Todd Memorial Volumes*. Of the forty articles in them the following should be of particular interest to linguists:

Franz Boas, *Spanish Elements in Modern Nahuatl*.

Georges Cirot, *Nouvelles observations sur 'Ser' et 'Estar'*.

Louis H. Gray, *Indo-European Linguistics as an Aid to Romance Etymology*.

Max A. Luria, *Judeo-Spanish Dialects of New York City*.

Henry F. Muller, *Concerning the Origin of Some Dialectal Features of the Romance Languages*.

G. O. Russell, *Universal Symbols of Speech Research*.

Dorothy Turville, *Italian Feminine Singular Nouns Derived from Latin Neuter Plurals*.

OF THE PAPERS READ AT THE FOURTH ANNUAL MEETING, some have not been prepared for publication, others are under consideration by the editors of journals, and an unusual number are being held for incorporation in larger works. The following have appeared in print, or are about to be issued:

S. E. Bassett, *'Through a Glass Darkly', I Corinthians 13, 12*; in *Journal of Biblical Literature*, 67. parts 3 and 4.

G. M. Bolling, *παρατεῖσθαι = ἀθερεῖν?*; in *Classical Quarterly* 22. 101-6.

G. M. Bolling, *Homeric Notes*, in *Classical Philology* 23. 63-5, with *Corrigendum*, *ibid.*, 291.

G. M. Bolling, *The New Ptolemaic Papyrus Containing Parts of Iliad xii, 128-263*; in *Journal of Egyptian Archaeology* 14. 78-81.

L. Bloomfield, *A Note on Sound-Change*; in *LANGUAGE* 4. 99-100.

R. G. Kent, *Lachmann's Law of Vowel Lengthening*; in *LANGUAGE* 4. 181-90.

H. J. Leon, *The Language of the Inscriptions from the Jewish Catacombs of Rome*; in *Transactions of the American Philological Association* 58. 210-33.

C. M. Lotspiech, *Sound Symbolism*; shortly to appear in *Journal of English and German Philology*.

- T. Michelson, *Walleser on the Home of Pali*; in LANGUAGE 4. 101-5.  
T. Michelson, *Some Algonquian Notes*; in part, to appear in *International Journal of American Linguistics*.  
W. Petersen, *The Latin vi-Perfect*; in LANGUAGE 4. 191-9.  
W. Petersen, *The Growth of the Greek κ-Perfect*; in LANGUAGE 4. 267-76.  
E. Sapir, *A Study in Phonetic Symbolism*; in *American Journal of Experimental Psychology*.  
E. H. Sturtevant, *Initial sp and st in Hittite*; in LANGUAGE 4. 1-6.  
E. H. Sturtevant, *A Hittite Tablet in the Babylonian Collection at Yale*; in TAPA 58. 5-31.

FRANK OTIS REED, a member of the Linguistic Society, died at Tucson, Arizona, on December 8, 1928.

He was born on July 20, 1876, at Orange, Mass., and received the degree of A.B. from Amherst College in 1899. He pursued graduate studies at Paris, Madrid, and Halle, as well as in this country, and won the degree of M.A. in 1904 and of Ph.D. in 1906, both at Harvard University. His first teaching was at Amherst College, in 1899; he was afterwards for a number of years at the University of Wisconsin, from which he went to the University of Arizona as Professor of Spanish, which position he held until his death.

He became a member of the Linguistic Society in 1926, but resigned at the end of the year. Invited to participate in the Linguistic Institute of 1928, he accepted, and offered courses in Spanish and Portuguese. His interest in the Institute was very marked, and he reassumed membership in the Linguistic Society. He was planning to attend the meeting of the Linguistic Society in New York, in Christmas week of last year, when he was suddenly stricken with the influenza and died on December 8.

Those who were associated with him at the Linguistic Institute will deeply regret the loss of his genial and enthusiastic personality.

DR. C. G. LOWE, Associate Professor of Classical Languages in the University of Nebraska, has been appointed permanent Chairman of the Department, with the rank of full Professor.

W. W. PERKINS is this year Acting Assistant Professor of French at Butler University, Indianapolis.

DR. A. G. SOLALINDE of the University of Wisconsin spent the first semester of the current academic year at the University of Texas, giving

advanced courses in Spanish. At the end of the semester he sailed to Spain under a Guggenheim Fellowship. He will spend the year in Madrid examining and classifying the manuscripts corresponding to Parts 2-6 of the General Estoria written by order of Alfonso X, and investigating the Latin culture, classic and mediaeval, reflected in the same work.

J. R. WARE, until recently Instructor in Latin at the University of Washington, accepted an appointment as Fellow in Chinese at the Harvard-Yenching Institute for the second term of this academic year, and is now in Cambridge.

SUBSEQUENT TO THE LAST PUBLISHED LIST OF NEW MEMBERS, and up to the end of 1928, the following new members for 1928 were received, whose addresses and linguistic interests will be found in the List of Members for 1928 printed in this issue: J. H. Adams, G. O. Aykroyd, Miss R. A. Bunzel, H. E. Elmer, Miss A. W. Erswell, S. R. Gilcreast, Miss L. G. Frary, F. W. Gingrich, Miss I. M. Greer, A. V. W. Jackson, M. Jacobs, S. Jaffe, H. Larsen, Miss G. H. Macurdy, H. I. Poleman, P. Radin, C. C. Rice, H. Rosen, G. K. Wagner, S. F. Walcott.

The following were received before December 25, 1928, as members for 1929:

- Prof. Edward P. Davis, Howard Univ., Washington, D. C. (German)  
Mrs. Milton L. Durlach (Theresa M.), 875 Park Av., New York City.  
Prof. H. A. Hamilton, Elmira College, Elmira, N. Y. (Class. Philology)  
Prof. Russell P. Jameson, Oberlin Col., Oberlin, O. (French and Spanish)  
Mr. Richard Knowles, St. Mark's School, Southborough, Mass. (Languages)  
Prof. A. R. Morris, Univ. of Michigan, Ann Arbor, Mich. (Rhetoric)  
Mr. Wilbur H. Oda, Germantown Academy, Germantown, Philadelphia, Pa.  
Prof. Richard H. Paynter, 395 Grand Av., Brooklyn, N. Y. (Social and Abnormal Psychology, Long Island University)  
Mr. Mario A. Pei, 502 W. 139th St., New York City. (Romance Langs., College of the City of New York)  
Miss Mabel H. Pollitt, Eastern Ky. State Teachers Col., Richmond, Ky. (Foreign Languages)  
Mr. Joseph J. Raymond, 595 Yale Station, New Haven, Conn.  
Prof. Edwin C. Roedder, Univ. of Wisconsin, Madison, Wis. (German)

Prof. James A. Spenceley, Univ. of Western Ontario, London, Ont., Canada. (English)

Mr. C. K. Thomas, Cornell Univ., Ithaca, N. Y. (Public Speaking, Phonetics, Speech Correction)

Prof. Alfred M. Tozzler, 7 Bryant St., Cambridge, Mass. (Anthropology, Harvard Univ.)

MEMBERS AND SUBSCRIBERS FOR 1929 may take advantage of a special offer, to complete their sets of the publications of the Linguistic Society. The publications of any one or several years, and single publications, may be had at 20 per cent discount from the list price; a complete set from 1925 to 1928 inclusive may be had at 30 per cent discount, or \$14.00. No credit for single issues will be given except for Language I.1 and II.3, for each of which 50 cents will be credited. These prices are postpaid, net to the Society; orders through agents must include the name of the ultimate recipient.

The offer, made in celebration of the Fifth Year of the Society, is not open to those who are not members or subscribers for 1929, and will be withdrawn without notice if the sale threatens to deplete the reserve stock; in any case, it is not expected to be continued beyond December 31, 1929. The only other special offer on the publications of the Society was that of 1926, on the publications of 1925, available to libraries subscribing for 1926. Those who wish to avail themselves of the present offer should make application at once to the Treasurer of the Society.



PROCEEDINGS  
OF THE  
LINGUISTIC SOCIETY OF AMERICA  
AT THE FIFTH ANNUAL MEETING  
NEW YORK, DECEMBER 26-28, 1928

The Fifth Annual Meeting of the Society was held in New York City on Wednesday to Friday, December 26 to 28, 1928, in connection with the convention of the American Association for the Advancement of Science, in special conjunction with the Linguistic Part of Section L of that Association, and with the American Anthropological Association and the American Psychological Association; and also in conjunction with the American Philological Association and the Archaeological Institute of America. The headquarters of the Society were at the Hotel Marseilles, Broadway at 103d Street; the first three sessions of the Society were held at the Columbia School of Mines, Broadway above 116th Street, and the other two at the Metropolitan Museum of Art, Fifth Avenue and 82d Street, and the American Museum of Natural History, 77th Street and Central Park West.

Record was secured of the attendance of the following members and members-elect of the Society; other members were present, but failed to give their names to the Secretary:

B. M. Allen, M. J. Andrade, G. O. Aykroyd.  
L. C. Barret, S. E. Bassett, C. F. Bauer, Miss G. H. Beggs, F. R. Blake, F. Boas,  
G. M. Bolling, L. S. Bull.  
A. U. N. Camera, Miss E. F. Claffin, Miss C. C. Coulter, E. Cross, G. O. Curme.  
N. W. DeWitt, R. J. Dixon.  
F. Edgerton, H. C. Elmer, Miss A. W. Erswell.  
H. S. Gehman, W. L. Graff, L. H. Gray, W. J. Grinstead.  
Miss L. Haessler, Miss E. A. Hahn, H. A. Hamilton, A. W. Harmon, J. W. Hewitt,  
P. K. Hitti, S. A. Hurlbut.  
A. V. W. Jackson, S. Jaffe, W. Jochelson.  
Miss M. L. Keller, G. D. Kellogg, R. G. Kent, R. Koch, F. B. Krauss.  
E. B. Lease, W. Leopold, M. A. Luria.  
Miss G. H. Macurdy, C. A. Manning, R. Marcus, N. N. Martinovitch, A. D.  
Menut, W. S. Messer, T. Michelson, S. Moore, O. Müller.

M. M. Odgers, C. J. Ogden.  
 M. Parry, R. M. Pierce, H. I. Poleman, F. R. Preveden, L. R. Prindle.  
 P. Radin, J. J. Raymond, N. J. Reich, Miss G. A. Reichard, A. F. J. Remy, A. L. Rice, C. C. Rice, H. B. Richardson, E. Riess, D. M. Robinson, H. Rosen, G. O. Russell.  
 L. E. Saidla, Miss E. M. Saleski, E. Sapir, R. J. Scott, E. V. Sehart, Miss M. W. Smith, E. A. Speiser, E. H. Sturtevant.  
 R. H. Tanner, Miss P. Turnbull.  
 H. H. Vaughan.  
 G. K. Wagner, J. T. Westbrook, J. Whatmough, H. R. Wolf, W. F. Wyatt. [87]

A subscription luncheon was held at one o'clock on Wednesday, December 26, at the Faculty Club of Columbia University, 117th Street and Morningside Drive, for those who had arrived in advance of the opening of the sessions, and was attended by 35 persons, of whom 34 were members of the Society.

The First Session was held in Room 306 of the Columbia School of Mines, jointly with the Linguistic Part of Section L of the American Association for the Advancement of Science, on the afternoon of Wednesday, December 26. President Boas called the meeting to order at 2.40 P.M. About 70 persons were present at the session.

By motion, the reading of the minutes was dispensed with, as the minutes of the previous meeting had already been printed in *LANGUAGE* 4.54-65.

The Secretary, Professor R. G. Kent, presented the following report, which was ordered to be received and filed:

The work of the Secretary's office has been continued along the same lines as in previous years.

The membership shows a slight increase. For the year 1927, there were 381 members, of whom 3 died during that year; 29 (S. T. Barrows, W. N. Bates, J.-B. Beck, L. M. Bourgoïn, R. P. Bowen, B. A. Brooks, T. F. Cummings, G. Dewey, B. A. Elzas, B. Faddegon, E. M. Fogel, A. Genin, F. Harrison, R. W. Kessler, R. Lenz, R. Levy, J. C. Mendenhall, J. Morris, J. W. Rankin, J. F. L. Raschen, A. I. Roehm, F. E. Sabin, O. Scheerer, C. F. Schreiber, M. S. Steel, O. Stepanek, W. B. Stephens, M. Vanoverbergh, H. B. van Wesep) presented their resignations effective at the end of 1927; 16 (O. E. Albrecht, F. B. Barasch, A. Coester, D. H. Corley, C. L. Durham, H. P. Flower, O. C. Gebert, R. H. Geoghegan, W. Gustafson, A. R. Halley, D. C. McEuen, J. M. Osma, K. Ruppert, S. B. Smith, E. H. Templin, L. B. V. Watson) were dropped from the membership list as directed by the Constitution of the Society in the case of those who have failed for two years to pay the annual dues. The net membership with which the Society started 1928 was there-

fore 333; the new members of 1928 are 55 in number, giving a total of 388. With sorrow we record the death of 4: Maurice Bloomfield on June 13, William Gardner Hale on June 23, Pliny E. Goddard on July 13, and Frank Otis Reed on December 8. Appreciations of these are to be found in the *Notes and Personalia* of LANGUAGE.

The library subscriptions have increased from 78 to 89, by the cancellation of 2 and the addition of 13; 10 of the new subscribers secured complete sets of the publications.

The exchanges and copies for review have increased from 49 to 55.

The liberal policy of the Society toward foreign scholars has been continued, and a few additions and subtractions have been made during the year. Of those thus receiving our publications, 3 have died: G. Fougères, K. F. Johansson, G. Lafaye. It is highly desirable that this list be now revised and put on a more systematic basis, and the Secretary hopes to accomplish this shortly, with the aid of the Executive Committee.

Other matters are dealt with in the report of the Executive Committee and in the report of the Treasurer.

As Treasurer, Professor Kent then presented the following report, which was ordered received and filed, pending the report of the Auditors:

#### Linguistic Society of America

##### Treasurer's Report, Dec. 25, 1927 to Dec. 23, 1928

Balance from previous year (checkable funds).....		\$1031.21
Receipts:		
Dues for 1926 (2), 1927 (16), 1928 (341).....	\$1795.00	
Library subscriptions for 1927 (\$17.50) and 1928.....	422.56	
Advance dues, 21 members, 16 libraries.....	185.00	
Sale of back sets and single publications.....	302.20	
Reprints, mailing lists, binding.....	17.69	
Check on failed bank.....	5.00	
Interest on checkable fund and savings account.....	44.05	
Interest on Endowment.....	50.00	
A. C. L. S. refund, half expenses of delegates.....	50.28	
Subvention to Monograph No. 3, balance.....	52.05	
Subvention to Dissertation No. 1, balance.....	50.00	
Subvention to Dissertation No. 2.....	280.00	
Subvention to Dissertation No. 3.....	100.00	
Subvention to Dissertation No. 4.....	450.00	
Subvention to Monograph No. 4, partial.....	60.00	
Subvention of Carnegie Corporation, through A.C.L.S., for Linguistic Institute.....	2500.00	\$6363.81
Total Cash, Balance and Receipts.....		\$7395.02

## Disbursements:

Balance of Sec'y pro tem's expenses to Cincinnati, 1927...	\$52.69	
Editor's expenses to Dec. 31, 1927.....	25.00	
Expenses of Chairman of Nashville session.....	15.00	
Office expenses: postage, stationery, printing, address- ing, telegraph, telephone, express, binding, etc.....	228.72	
Circulars and Notices for Fifth Meeting.....	54.55	
Dues of 1928, American Council of Learned Societies...	25.00	
Expenses of delegates to council meeting, A.C.L.S.....	100.52	
Dues of International Etruscan Congress.....	3.97	
Advertising.....	8.60	
Language: envelopes, cash disbursements, etc.....	41.44	
Language III. 4, reprints, table of contents.....	391.17	
Language IV. 1, with reprints.....	487.03	
Language IV. 2, with reprints.....	299.33	
Language IV. 3, with reprints.....	357.89	
Language Dissertation No. 1, gross cost.....	107.57	
Language Dissertation No. 2, gross cost.....	276.30	
E. Yoder, refund of excess deposit on Diss. No. 2.....	42.18	
Bulletin No. 2.....	95.00	
Check on failed bank, collection on foreign check.....	5.20	
Subvention to Linguistic Institute.....	2500.00	\$5117.16

Deposited in West Phila. Title and Trust Co, 36th and Walnut Sts., Savings Fund.....	1000.00
Balance on checkable deposit, First National Bank of Phila., 32d and Market Sts.....	1277.86
	<hr/> \$7395.02

## Schedule of Assets and Liabilities, to Dec. 31, 1928

## Assets:

Cash in checkable account, First Nat. Bk. of Phila.....	\$1277.86	
Cash in Savings Fund of W. Phila. Title & Trust Co...	1500.00	
Current funds in Endowment Fund.....	65.00	
Accrued interest on preceding and endowment (est.)....	70.00	
Recoverable arrears of dues, and unpaid orders (est.)...	75.00	\$2987.86

## Liabilities (estimated):

Secretary's expenses to New York, 1928.....	7.98	
Editor's allowance, 1928.....	25.00	
Sundry items (telegraph, etc.).....	4.00	
Dues and subscriptions paid in advance.....	185.00	
Deposits on Diss. No. 4 and Monog. No. 4.....	510.00	
Language IV. 4 and table of contents.....	500.00	
Dissertation No. 3, net cost.....	25.00	\$1256.98

Estimated Net Balance, in addition to \$935 of Endowment.....	\$1730.88
Actual New Balance, Dec. 31, 1927.....	\$1217.33

The Trustees of the Endowment Fund (F. C. Morgan, A. R. Spencer, R. G. Kent) ask that their report be here appended:

There is no change in the Endowment Fund during 1928. The Fund contains \$935, which, with \$65 of current funds, is invested in one One Thousand Dollar Five Per cent Net Guaranteed Mortgage Certificate of the West Philadelphia Title and Trust Co., in whose custody the certificate is left for safety. The Treasurer of the Society acknowledges the receipt of the interest as due.

On behalf of the Executive Committee, the Secretary presented the following report:

During the year, the Executive Committee duly attended to the business which came before it, mostly such matters as are contemplated in the Constitution or in the authorizations given at the last meeting.

The Committee, acting by correspondence, fixed the time and place of the present meeting, and elected to membership in the Society the several lists of nominees for membership, published in *LANGUAGE* as elected in 1928.

President Boas, in conference with the Secretary, appointed the following delegates to Conferences and Congresses:

Conference on Linguistic Bibliography, Paris, March 12-3: *E. B. Babcock*, W. A. Oldfather.

First International Congress of Linguists, The Hague, April 10-5: F. Boas, W. A. Oldfather.

First International Etruscan Congress, Florence and Bologna, April 25 to May 3: J. W. Hewitt, D. M. Robinson.

Seventeenth International Congress of Orientalists; Oxford, August 27 to September 3: *H. H. Bender*, W. N. Brown, A. R. Nykl, W. A. Oldfather.

The names of delegates who attended the meetings are set in italics.

On the inability of Professor Armstrong to serve as Chairman of the Committee to request educational foundations for a subvention for publication, the President reconstituted the Committee: Prof. Leonard Bloomfield, Chairman; Prof. Edward Prokosch.

The Executive Committee authorized the publication of the *Record of the Linguistic Institute 1928*, as a *Bulletin* of the Executive Committee, under Article V, Section 2, of the Constitution.

The Executive Committee, by a mail vote taken about September 1, authorized the Administrative Committee of the Linguistic Institute to proceed with plans for a second session of the Institute in 1929; and the President and the Secretary have cooperated with the Administrative Committee in successful applications for a subvention for both sessions, granted by the Carnegie Corporation of New York.

The Executive Committee met on Wednesday, December 26, 1928, at 11.00 A.M., in Room 705 of the Journalism Building of Columbia University, southeast corner of 116th Street and Broadway. Present, President Boas, and Messrs. Curme, Kent, Edgerton, of the Committee; and by invitation, Messrs. Bolling,



S. Moore, of the Committee on Publications, Mr. Sturtevant, Director of the Linguistic Institute, Mr. Manning, of the Local Committee on Arrangements, and Mr. Sapir.

The reports of the Secretary, of the Treasurer, of the Editor, of the Director of the Linguistic Institute, of Professor Boas for the Committee of the American Council of Learned Societies on Research in American Indian Languages, and of the Chairman of the Committee to request educational foundations for a subvention for publication, were presented informally, and their contents considered.

After consideration of a number of nominations, the Executive Committee recommends that in accord with Article II, Section 8 of the Constitution, the following scholars be elected to Honorary Membership:

Prof. Paul Kretschmer, President of the Indogermanische Gesellschaft, Vienna, Austria.

Prof. Carl Meinhof, of the University of Hamburg, Hamburg, Germany.

Prof. R. Menéndez Pidal, of the Universidad Central, Madrid, Spain.

Another recommendation will be made later in the session. Other matters were discussed, but seemed to call for no formal action.

The report was ordered received and filed, and the nominees for Honorary Membership were on motion elected.

Prof. G. M. Bolling, Editor of the Publications of the Society and Chairman of the Committee on Publications, presented the following report, which was on motion adopted:

For your Committee on Publications I have the honor to report that during the year we have published the following:

LANGUAGE, Volume IV; 302 pages.

LANGUAGE DISSERTATION No. 2: *The Position of Possessive and Demonstrative Adjectives in the Noctes Atticae of Aulus Gellius*, by Edward Yoder, Ph.D. of the University of Pennsylvania; 103 pages.

LANGUAGE DISSERTATION No. 3: *Latin Parens, its Meanings and Uses*, by Merle Middleton Odgers, Ph.D. of the University of Pennsylvania; 32 pages.

BULLETIN No. 2: *Record of the Linguistic Institute 1928*, by Roland G. Kent; 20 pages.

Of these, *Language Dissertation No. 3* will be distributed after January 1. *Dissertation No. 4* is in the press, and *No. 5* has been accepted by the Editors. *Language Monograph No. 4* also has been accepted for publication.

The Committee wishes to express its appreciation of the assistance received from various members of the Society.

Professor E. H. Sturtevant presented the following report as Director of the Linguistic Institute:

On December 27, 1927, the Linguistic Society of America voted to authorize the holding of a Linguistic Institute in New Haven in the summer of 1928, and ap-

pointed an Administrative Committee consisting of E. H. Sturtevant, Director, R. E. Saleski, Assistant Director, and R. G. Kent, Secretary of the Linguistic Society of America. This Committee was authorized to carry out the plans which had been laid before the Society, or to cancel them if the support secured for the Institute should seem insufficient.

The Committee distributed a circular describing the Institute (copy whereof is attached hereto), and the response showed that a demand for the Institute existed. The plans previously made were therefore carried out, with certain revisions and additions, most of which were announced in a supplementary circular, of which a copy is attached hereto.

The session lasted from July 9 to August 17, 1928. A report of it, prepared by R. G. Kent, has been published as *Bulletin No. 2* of the Linguistic Society of America. A copy of this document is attached hereto, and is made a part of this report of your Committee.

The total membership of the Institute was 65, of whom 35 were professors and 11 were instructors in college or university. One was a museum curator, and one a research associate. Seven were teachers in secondary schools, and nine were graduate students. Thirty-four colleges and universities, two museums, and six secondary schools were represented.

The financial report, which is printed on page 20 of *Bulletin No. 2*, shows total receipts of \$6156.15 and total disbursements of \$6144.52, leaving a balance on hand on August 18, 1928, of \$11.63.

At a meeting held August 9, 1928, the members of the Institute voted to recommend to the Linguistic Society of America that a second session of the Institute be held in 1929, and that for at least one more year the Institute be conducted in New Haven.

Pursuant to the resolution adopted by the Society on December 27, 1927, the Executive Committee has authorized a continuance of the Linguistic Institute in 1929 under the same Administrative Committee.

A subvention of \$4000 toward meeting the expenses of the session has been granted by the Carnegie Corporation of New York. Yale University will again place its buildings at our disposal free of charge, except that a small rental will be charged of those who occupy dormitory rooms. The Yale Corporation has also appropriated \$1000, of which \$500 is to be applied toward the stipends of officers of Yale University who teach in the Institute, and \$500 is to defray additional expenses of the Yale Library which are caused by the Institute and to cover library fees which last year were paid by the Institute. We are asking other universities and colleges to contribute toward our expenses; but so far we cannot report any success.

Up to the present date, twenty scholars, of whom nine did not teach in the Institute in 1928, have agreed to offer a total of thirty-one courses in 1929. We hope to secure three or four other scholars, and to add five or six courses.

The Announcements will be ready about March 1. The Administrative Committee plans to ask the permission of the Executive Committee to have them printed as a *Bulletin* of the Executive Committee of the Linguistic Society of America.

The Administrative Committee asks the Society to pass the following resolution:

Resolved, that the Linguistic Society of America hereby empowers the Executive Committee to authorize the continuance of the Linguistic Institute in 1930, to appoint an Administrative Committee to conduct a session of the Linguistic Institute in 1930, and to determine where such a session shall be held.

On motion, the report was received, and the resolution was adopted.

Professor Boas, as Chairman of the Committee of the American Council of Learned Societies on Research in American Indian Languages, reported informally that in the first two years under the grant of \$10,000 per annum sixteen languages had been investigated, most of which had not been investigated before, and that similar work would be pursued during the coming year.

The report of the Committee to request educational foundations for a subvention for publication of certain works (L. Bloomfield, Chairman; E. Prokosch) was, in the absence of its Chairman, Professor Leonard Bloomfield, presented by the Secretary of the Society, as follows:

The Committee to request educational foundations for a subvention of Ten Thousand Dollars toward the publication of the following works: (a) Manuscript material collected by the Committee on American Indian Linguistic Research, (b) Livonian Grammar and Dictionary, in course of preparation by O. Looorits, is unable to carry out its instructions because it has not succeeded in getting definite information as to size and whereabouts of the material under (b). The foundations will not consider requests that are not accompanied by such information.

The Committee would be glad to proceed under changed instructions, limiting the material to 'manuscript material approved by the Committee on Research in American Indian Languages'.

The following is a list of material at present awaiting publication, and to be included in our eventual request. The list includes only material actually ready for the printer:

Andrade, M. J., Quileute Texts, Grammar, Vocabulary; 500 typewritten pp.

Bloomfield, L., Plains Cree Texts, 1400 typewritten pp.

Boas, F., Kwakiutl Texts, 640 pp. for photographing.

Kwakiutl Dictionary, 760 typewritten pp.

Frachtenberg, L., Alsea Grammar, 422 typewritten pp.

Goddard, P. E., Navajo Texts, 100 printed pp.

Kiowa Apache Texts, 100 printed pp.

Jochelson, W., Aleut Texts and Grammar, 900 typewritten pp.

Michelson, T., Fox Texts, 55 printed pp.

Radin, P., Wappo Texts, 200 printed pp.

Zapotec Texts, 200 printed pp.

Pomo Grammar and Dictionary, 100 printed pp.

Huave Dictionary, 100 printed pp.

Sapir, E., *Paiute Texts, Grammar, Dictionary*, 1400 typewritten pp.  
 Swanton, J. R., *Haida Texts*, 400 typewritten pp.

On motion, the report was received. The Executive Committee reported a recommendation that the Committee be continued with instructions to request the educational foundations for a subvention toward the publication of manuscript material approved by the Committee on Research in American Indian Languages. This recommendation was, on motion, voted by the Society.

Prof. E. H. Sturtevant, for the delegates to the American Council of Learned Societies (E. H. Sturtevant, L. Bloomfield), reported that both delegates of the Linguistic Society had attended the meetings of the Council on January 27 and 28, in Washington, D. C., the proceedings of which are accessible in printed form in the *Bulletin* of the Council; and that it is due to the influence of the Council that the Linguistic Institute has received, both for 1928 and for 1929, subventions from the Carnegie Corporation of New York.

The reports of the delegates to European congresses were called for, but in view of the fact that summaries of the meetings, taken mostly from the accounts sent in by the delegates, had been printed in the *Notes and Personalia* of LANGUAGE, or would be printed in the next issue, the reports were dispensed with.

The President now appointed the following committees:

On Nomination of Officers for 1929: H. Kurath, Chairman; Miss E. A. Hahn;  
 A. U. N. Camera.  
 To Audit the Accounts of the Treasurer: M. M. Odgers, L. M. Prindle.

The reading of papers was now begun:

Prof. N. J. Reich, of The Dropsie College: *The Reasons for the Direction of our Writing, toward the left or toward the right.* (Illustrated.)  
 Prof. A. D. Menut, of Syracuse University: *Doublets in the Language of Rabelais.* Discussion by Messrs. Kent, Cross.  
 Prof. H. H. Vaughan, of the University of California: *Greek Dialectal Forms Reflected in Romance.* Discussion by Mr. Sturtevant.  
 Dr. Maria Wilkins Smith, of Temple University: *An Interpretation of Plural Agreements with Ahura in the Gathas of the Avesta.* Discussion by Messrs. Cross, Edgerton, Kent, Jackson, Martins, Blake.

- Prof. E. H. Sturtevant, of Yale University: *Contract Verbs in Hittite and the Source of the Indo-European ā-Stems*. Discussion by Messrs. Bolling, Michelson.
- Prof. George T. Flom, of the University of Illinois: *On the Problem of the Palatals in Old English and Old Norse*. (Read by title only.)
- Mr. Guenter K. Wagner, of New York City: *The Sex-Gender of the Yuchi Language*. Discussion by Messrs. Michelson, Blake, Sapir, Boas.
- Prof. Hans Kurath, of the Ohio State University: *Quantity, Tenseness, and Certain Qualitative Changes in the English Vowels*. (Read by title only.)
- Prof. A. V. Williams Jackson, of Columbia University: *The Term ročvarmh in a Turkish Manichaeon Fragment*.
- Prof. George Melville Bolling, of the Ohio State University: *The Meaning of the Enclitic πον in Homer*. Discussion by Mr. Kent.
- Miss Alma W. Erswell, of Swarthmore, Pa.: *The Boettcher System of Sound Evolution*.
- Prof. Pauline Turnbull, of the University of Richmond: *Praenestine asom fero = adsum, fero*. (Read by title only.)
- Prof. Roland G. Kent, of the University of Pennsylvania: *The Praenestine Cookery Inscription*.
- Prof. Truman Michelson, of the George Washington University and the Smithsonian Institution: *Addenda et Corrigenda*. Discussion by Mr. Ogden.
- Mr. Jaime de Angulo, of Berkeley, Calif.: *The Relation of Mixe to the Penutian Family*. (Read by title only.)
- Prof. Homer F. Rebert, of Amherst College: *The Origin and Meaning of Latin at*. (Read by title only.)
- Dr. Melville Jacobs, of the University of Washington: *The Relation of Molale to Sahaptin and Klamath*. (Read by title only.)
- Prof. Ina May Greer, of the South Dakota State College: *Some Notes on South Dakota Pronunciation*. (Read by title only.)

Adjournment was taken at 5.30 p.m.

An informal subscription dinner was held at 6.15 p.m., at the Faculty Club of Columbia University, 117th Street and Morningside Drive, with an attendance of 43 persons, of whom 38 were members of the Society.



The Second Session was held in Room 305 of the Columbia School of Mines, jointly with the Linguistic Part of Section L of the American Association for the Advancement of Science, on the evening of Wednesday, December 26. President Boas called the meeting to order at 8.25 p.m. About 70 persons were present. The reading of papers was at once begun:

Prof. Franz Boas, of Columbia University, President of the Linguistic Society: *The Classification of American Indian Languages*. Discussion by Messrs. Kent, Cross, Michelson, Miss Erswell, Messrs. Sturtevant, Bogoras, Sapir.

Prof. George O. Curme, of Northwestern University, Vice-President of the Linguistic Society: *The Forms and Functions of the Subjunctive in the Classical and Modern Languages*. Discussion by Miss Hahn, Mr. Kent.

Prof. Frank R. Blake, of The Johns Hopkins University: *The Relation between Indo-European and Semitic*.

Prof. Edward Sapir, of the University of Chicago: *The Nature of the Athabaskan Noun and Verb*.

Adjournment was taken at 10.20 p.m.

The Third Session was held in Room 306 of the Columbia School of Mines, jointly with the Linguistic Part of Section L of the American Association for the Advancement of Science, on the morning of Thursday, December 27. President Boas called the meeting to order at 9.35 a.m. About 60 persons were in attendance. The reading of papers was at once begun:

Prof. N. N. Martinovitch, of Columbia University: *Some Greco-Turkish Parallels*.

Mr. M. J. Andrade, of the New York Schools: *Interrelations of Pitch, Stress, and Quantity in Quileute*. Discussion by Messrs. Cross, Boas, C. C. Rice.

Prof. W. Leopold, of Northwestern University: *Form, Function, and Meaning*. Discussion by Mr. Curme.

Prof. Carlton C. Rice, of Catawba College: *Spanish Etymologies—estragar, sesgar, simado, sosegar*. Discussion by Messrs. Cross, Richardson, Kent.

- Prof. Franklin Edgerton, of Yale University: *Dialectic Phonology in the Veda, as shown by the Vedic Variants*. Discussion by Messrs. Kent, Allen, Preveden, Sturtevant, Camera, Sapir, Ogden, Menut, Graff, Bolling.
- Prof. Max A. Luria, of the College of the City of New York: *Judeo-Spanish Dialects of New York City*. Discussion by Messrs. Camera, Raymond, Cross, Riess.
- Prof. Joshua Whatmough, of Harvard University: *The Development of the u-Diphthongs in Messapic*.
- Mr. Waldemar Jochelson, of the American Museum of Natural History, New York City: *Modifications of the Noun and the Verb in the Language of the Kamchadal*. Discussion by Mr. Boas.
- Dr. Edith R. Clafin, of Rosemary Hall, Greenwich, Conn.: *The Diathesis of the so-called Aorist Passive of Greek, in -θην*. Discussion by Messrs. Bolling, Graff.
- Prof. Francis R. Preveden, of DePaul University: *Etymologies of Some Animal Names in Balto-Slavic*.
- Prof. W. A. Oldfather, of the University of Illinois: *A Variety of the so-called Objective Genitive in Greek and Latin*. (Read by title only.)

A brief business session followed.

Professor Hahn, for the Committee on Nominations, presented the following report, which, in the absence of nominations from the floor, was adopted in the usual manner, and the nominees were declared elected:

President, Prof. Charles H. Grandgent, Harvard University.

Vice-President, Prof. W. A. Oldfather, University of Illinois.

Secretary and Treasurer, Prof. Roland G. Kent, University of Pennsylvania.

Executive Committee, the preceding, and

Prof. Leonard Bloomfield, University of Chicago.

Prof. Franklin Edgerton, Yale University.

Prof. Edward Prokosch, New York University.

Committee on Publications:

Chairman and Editor, Prof. George Melville Bolling, Ohio State University.

To serve through 1931, Prof. Edward Sapir, University of Chicago.

Prof. Odgers, for the Auditors, reported that they had examined the accounts of the Treasurer and found them correct; whereupon on motion the report of the Treasurer was approved.

Professor Sturtevant, as Director of the Linguistic Institute, presented the following statement:

We, the undersigned, have examined the accounts of Edgar H. Sturtevant as Director of the Linguistic Institute of the Linguistic Society of America for the period from Oct. 5, 1927, to Dec. 22, 1928, and we find them to be correct.

(signed) Kenneth Scott  
Franklin Edgerton

On motion the accounts of the Linguistic Institute were accepted and approved.

The Secretary presented the following resolution, which was on motion adopted:

Resolved, that the Linguistic Society of America express its sincere appreciation of the hospitality of Columbia University, of the Metropolitan Museum of Art, and of the American Museum of Natural History, in whose buildings the meetings are being held; of the cooperation of Professor A. I. Hallowell and Dr. J. A. Mason, of the American Anthropological Association, of Professor S. W. Fernberger, of the American Psychological Association, of Professor J. W. Hewitt, of the American Philological Association, of Professor R. H. Tanner, of the Archaeological Institute of America, and of Professor George B. Pegram, Chairman of the General Committee to arrange the meetings; and of the activity of Professor Boas, Professor Manning, and Professor Menut, in attending to details without which the meetings could not have been successfully held.

The Fourth Session was held on Thursday afternoon, December 27, jointly with the American Philological Association, in the Lecture Hall of the Metropolitan Museum of Art, Fifth Avenue and Eighty-second Street. Prof. Clarence P. Bill, President of the American Philological Association, called the meeting to order at 2.00 p.m. About 150 persons were in attendance. The following papers were presented:

- Dr. Charles Upson Clark, of North Hatley, Quebec: *An Early Use of the Accentual Clausula*. Discussion by Messrs. Kellogg, Harmon.  
 Prof. Edgar Howard Sturtevant, of Yale University: *Some Nouns of Relationship in Lycian and Hittite*. Discussion by Mr. Sihler.  
 Prof. Grace Harriet Macurdy, of Vassar College: *Homeric Personal Names of the Short Form*. Discussion by Messrs. Sihler, Sturtevant.  
 Prof. E. Adelaide Hahn, of Hunter College: *A Study of Zeugma in Vergil*. Discussion by Miss Claflin, Messrs. Riess, Sihler, Kent.  
 Prof. Philip K. Hitti, of Princeton Univ.: *Arabic Words in the English Language*. Discussion by Messrs. Bull, Raymond, Martinovitch.

Prof. David M. Robinson, of The Johns Hopkins University: *A Record of Sale from Olynthus*. Discussion by Mr. Bolling.

Dr. Philip B. Whitehead, of Clarendon, Vt.: *A New Method of Studying the Caesura: the Caesura in Latin Pentameter*. The paper was, in the author's absence, read by Mr. Sturtevant.

Prof. Norman W. DeWitt, of Cornell University: *Latin licio 'strike'*. (Read by title only.)

Adjournment was taken at 3.52 p.m., after which the members of the Societies were invited to make a special visit to the Morgan Library or to the Frick Art Reference Library. Many of those present availed themselves of the opportunity.

The Fifth Session was held on the afternoon of Friday, December 28, in the Library Reading Room of the American Museum of Natural History, Seventy-Seventh Street and Central Park West, jointly with the American Anthropological Association, Section H of the American Association for the Advancement of Science, and the Linguistic Part of Section L of the same Association. Professor Boas, as President both of the Anthropological Association and of the Linguistic Society, called the meeting to order at 2.30 p.m. and presided during the first paper, after which he called to the chair Professor Bolling, as Chairman of Section L of the A. A. A. S. About 100 persons were in attendance. The following papers were presented:

Dr. Ephraim Cross, of New York City: *Syncope and Kindred Phenomena in the Roman World, as they bear on the development of the Romance languages*. Discussion by Mr. Bolling.

Prof. Francis R. Preveden, of DePaul University: *Etymological Miscellanies*. Discussion by Messrs. Edgerton, Kent, Bolling.

Prof. Truman Michelson, of George Washington University and Smithsonian Institution: *Some Algonquian Phonetic Shifts*.

Prof. Paul Radin, of Fisk University: *The Zapotec Language of Oaxaca*. Discussion by Messrs. Sapir, Cross, Boas, Bolling.

Dr. W. Bogoras, of the Russian Academy of Sciences, Leningrad: *Some Remarks on Siberian Shamanism*. Discussion by Messrs. Boas, Cross, Bolling.

Dr. John R. Swanton, of the Smithsonian Institution: *A Newly Discovered Dialect in the Gulf Area*. (Read by title only.)

Prof. Roland G. Kent, of the University of Pennsylvania: *A Detail of Linguistic Method*. Discussion by Messrs. Sturtevant, Michelson, Preveden, Bolling, Sapir.

Prof. Edward Sapir, of the University of Chicago: *The Status of Linguistics as a Science*. Discussion by Messrs. Moore, Boas.

The last paper, it should be noted, was made a special order of the day, to begin at 4.30 p.m.; it was given at the request of the authorities of the American Association for the Advancement of Science, to present the conclusions of a committee of the A. A. A. S. to investigate the relation of linguistic science to the natural and physical sciences. This committee consisted of Prof. Sapir, Chairman; Prof. G. M. Bolling; Prof. B. E. Livingston.

Adjournment was taken at 5.20 p.m.

This meeting surpassed all previous meetings in the attendance of scholars; in the offering of papers; and in the coordination of Oriental, classical, modern, and Americanist themes. It marks a decided step forward in linguistic studies in this country, and with the foundation of the Linguistic Institute, makes 1928 a notable year for 'the advancement of the scientific study of language' in America, which is the purpose of the Linguistic Society of America.

(signed) ROLAND G. KENT,  
Secretary.



## LIST OF MEMBERS, 1928

This list includes all those who were on the rolls of the Society in 1928. SC before the name indicates Signers of the Call which led to the foundation of the Society, FM indicates Foundation Members, a date indicates the year of election. So far as the information is at hand, the special subject of instruction or of study, or the occupation, is given. Any changes of address or of title, and any errors, should be at once reported to the Secretary of the Society. Later lists will give the names of those who become members during 1929.

### ASSOCIATED SOCIETIES

Indogermanische Gesellschaft, bei Prof. Dr. A. Debrunner,  
Landgrafenstieg 5, Jena, Germany.

Société de Linguistique de Paris, à la Sorbonne, Paris V, France.

### HONORARY MEMBERS

- 1927 Prof. Dr. A. Debrunner, Landgrafenstieg 5, Jena, Germany.
- 1927 Prof. Dr. Otto Jespersen, Ermelundsly, Gentofte, Copenhagen, Denmark.
- 1927 Prof. A. Meillet, 24 Rue de Verneuil, Paris VII, France.
- 1928 Prof. Dr. W. Meyer-Lübke, Universität, Bonn, Germany.
- 1927 Dr. P. Rivet, 61 Rue de Buffon, Paris, France.
- 1928 Prof. Dr. Ed. Sievers, Schillerstr. 8, Leipzig, Germany.
- 1928 Prof. Dr. F. Sommer, Ludwigstr. 22, München, Germany.
- 1927 Prof. Dr. Jakob Wackernagel, Gartenstr. 93, Basel, Switzerland.
- 1927 Prof. Henry Cecil Wyld, Merton College, Oxford, England.

### ACTIVE MEMBERS

- FM Prof. Arthur Adams, Trinity Col., Hartford, Conn. (English)
- 1928 Mr. J. H. Adams, Kenvil, N. J. (Translator and abstractor, Hercules Experimental Station)
- 1927 Mrs. Ruth Norton Albright (Mrs. W. F.), Box 333, Jerusalem, Palestine. (Indology)
- FM Prof. Joseph E. A. Alexis, 1420 Garfield St., Lincoln, Neb. (Romance Langs, Univ. of Nebraska)
- 1926 Mr. Bernard M. Allen, Cheshire, Conn. (Latin, Roxbury School)

- 1926 Prof. Louis Allen, Univ. of Toronto, Toronto, Canada. (French)  
1927 Mr. Wm. H. Allen, 3345 Woodland Av., Philadelphia, Pa.  
(Bookseller)  
FM Prof. Hermann Almstedt, Univ. of Missouri, Columbia, Mo.  
(Germanic Langs.)  
1926 Mr. Manuel J. Andrade, DeWitt Clinton High School, New  
York City. (Spanish)  
1925 Prof. A. LeRoy Andrews, Cornell Univ., Ithaca, N.Y. (German)  
FM Prof. Claude E. Anibal, Ohio State Univ., Columbus, Ohio.  
(Spanish)  
1925 Prof. Edward C. Armstrong, 26 Edgehill St., Princeton, N. J.  
(French, Princeton Univ.)  
FM Prof. Herbert D. Austin, Univ. of Southern California, Univer-  
sity Av., Los Angeles, Calif. (Italian and French)  
1928 Prof. Elizabeth Avery, Smith College, Northampton, Mass.  
(Spoken English)  
1928 Prof. George O. Aykroyd, 175 W. Union Blvd., Bethlehem, Pa.  
(Classical Langs. and Lits., Moravian Col. and Theol. Sem.)  
FM Prof. Harry Morgan Ayres, Columbia Univ., New York City.  
(English)  
FM Prof. Earle B. Babcock, Dotation Carnegie, 173 Boulevard  
St.-Germain, Paris, France. (Romance Langs.)  
1925 Prof. James L. Barker, Univ. of Utah, Salt Lake City, Utah.  
(Modern Langs.)  
FM Prof. A. J. Barnouw, Columbia Univ., New York City. (Dutch  
Hist., Lang., and Lit.)  
SC Prof. LeRoy Carr Barret, Trinity Col., Hartford, Conn. (Latin)  
1927 Mr. Phillips Barry, 5 Craigie Circle, Cambridge, Mass. (Classics)  
FM Prof. George A. Barton, Univ. of Pennsylvania, Philadelphia,  
Pa. (Semitic Langs.)  
1927 Prof. Samuel Eliot Bassett, 295 S. Prospect St., Burlington, Vt.  
(Greek Lang. and Lit., Univ. of Vermont)  
1926 Dr. Claudio Basto, Viana do Castelo, Portugal.  
1927 Mr. Charles F. Bauer, 3440 Chestnut St., Philadelphia, Pa.  
(Classics, William Penn Charter School)  
FM Prof. Gertrude H. Beggs, Westhampton College, Univ. of  
Richmond, Va. (Latin)  
FM Dean H. M. Belden, 811 Virginia Av., Columbia, Mo. (English,  
Univ. of Missouri)

- SC Prof. Harold H. Bender, 120 Fitz Randolph Road, Princeton, N. J. (Indo-Germanic Phil., Princeton Univ.)
- 1927 Prof. Adolph B. Benson, 548 Orange St., New Haven, Conn. (German and Scandinavian, Yale Univ.)
- FM Miss M. Julia Bentley, 3517 Middleton Av., Clifton, Cincinnati, Ohio. (Latin, Hughes High School)
- FM Mr. Morris Berg, 92 S. 13th St., Newark, N. J. (Romance Langs.)
- FM Prof. Frank R. Blake, 1600 Park Av., Baltimore, Md. (Oriental Langs., Johns Hopkins Univ.; Principal, Baltimore City Col.)
- 1928 Prof. D. S. Blondheim, Johns Hopkins Univ., Baltimore, Md. (Romance Phil.)
- SC Prof. Leonard Bloomfield, Univ. of Chicago, Chicago, Ill. (Germanic Phil.)
- SC Prof. Emeritus Maurice Bloomfield, Johns Hopkins Univ., Baltimore, Md. (Sanskrit and Comparative Phil.) Died June 13, 1928.
- SC Prof. Franz Boas, Columbia Univ., New York City. (Anthropology)
- FM Mr. George Bobrinskoy, Univ. of Chicago, Chicago, Ill. (Sanskrit)
- 1928 Prof. Émile Boisacq, 271 Chaussée de Vleurgat, Ixelles-Bruxelles, Belgium. (Sanskrit and Comparative Phil., Univ. of Brussels)
- SC Prof. George Melville Bolling, Ohio State Univ., Columbus, Ohio. (Greek) Life Member, 1927.
- 1926 Prof. J. L. Boysen, Box 1510, Univ. Sta., Austin, Texas. (Germanic Langs., Univ. of Texas)
- FM Prof. George H. Brown, Worcester Polytechnic Institute, Worcester, Mass. (Modern Langs.)
- FM Prof. George Wm. Brown, 57 Sherman St., Hartford, Conn. (Indology, Kennedy School of Missions)
- FM Prof. W. Norman Brown, Univ. of Pennsylvania, Philadelphia, Pa. (Sanskrit)
- 1925 Prof. W. F. Bryan, 1907 Orrington Av., Evanston, Ill. (English, Northwestern Univ.)
- SC Prof. Carl D. Buck, Univ. of Chicago, Chicago, Ill. (Comparative Phil.)
- 1926 Dr. Ludlow S. Bull, Metropolitan Museum, New York City. (Egyptology, Metropolitan Museum and Yale Univ.)

- 1928 Miss Ruth A. Bunzel, Dept. of Anthropology, Columbia Univ., New York City. (Lang. and Ethnology of North American Indians)
- FM Dean Robert B. Burke, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)
- FM Prof. A. U. N. Camera, 575 Dahill Road, Brooklyn, N. Y. (Romance Langs., Col. of City of New York)
- 1927 Prof. Harry Caplan, Cornell Univ., Ithaca, N. Y. (Classics)
- 1925 Prof. Frederick M. Carey, 855 N. Vermont Av., Los Angeles, Calif. (Greek and Latin, Univ. of Calif., Southern Branch)
- 1927 Prof. Jane Gray Carter, 175 Riverside Drive, New York City. (Classics, Hunter Col.)
- 1926 Dr. F. S. Cawley, 65 Fresh Pond Parkway, Cambridge, Mass. (German, Harvard Univ.)
- FM Juan C. Cebrian, Esq., Jorge Juan 6, Madrid, Spain. (Spanish)
- 1926 Mr. Victor Chankin, Seward Park High School, Essex St., New York City. (Modern Langs.)
- FM Dean George Davis Chase, Univ. of Maine, Orono, Me. (Latin)
- FM Dr. Edith Frances Claffin, 17 Felton Hall, Cambridge, Mass. (Greek and Latin, Rosemary Hall, Greenwich, Conn.)
- 1926 Mr. John M. Clapp, 15 E. 26th St., New York City. (Publisher)
- 1925 Prof. Letta M. Clark, 1501 L St., Lincoln, Neb. (Technique of Instruction in English, Univ. of Neb.)
- 1925 Prof. Walter E. Clark, 37 Kirkland St., Cambridge, Mass. (Sanskrit, Harvard Univ.)
- FM Mr. Francis P. Clarke, Univ. of Pennsylvania, Philadelphia, Pa. (Philosophy)
- 1925 Prof. Harold L. Cleasby, 805 Comstock Av., Syracuse, N. Y. (Classical Archaeology and Italian, Syracuse Univ.)
- FM Mr. George F. Cole, Univ. of Pennsylvania, Philadelphia, Pa. (Romanic Langs.)
- SC Prof. Emeritus Hermann Collitz, 1027 N. Calvert St., Baltimore, Md. (Germanic Phil., Johns Hopkins Univ.)
- 1927 Mrs. Klara H. Collitz (Mrs. Hermann), 1027 N. Calvert St., Baltimore, Md. (Germanic Philology)
- FM Rev. George S. Cooke, The Wissahickon Inn, Redlands, Calif.
- FM Prof. Roberta D. Cornelius, Randolph-Macon Woman's Col., Lynchburg, Va. (English)
- 1927 Prof. Cornelia C. Coulter, Mount Holyoke Col., South Hadley, Mass. (Latin)

- 1927 Prof. R. W. Cowden, 1016 Olivia St., Ann Arbor, Mich. (Rhetoric, Univ. of Michigan)
- FM Prof. Hardin Craig, Univ. of Iowa, Iowa City, Iowa. (English)
- 1926 Prof. W. A. Craigie, Univ. of Chicago, Chicago, Ill. (English)
- FM Prof. J. P. Wickersham Crawford, Univ. of Pennsylvania, Philadelphia, Pa. (Romanic Langs. and Lits.)
- 1926 Prof. E. D. Cressman, 2076 S. St. Paul St., Denver, Colo. (Classics, Univ. of Denver)
- 1927 Mr. Ephraim Cross, 1299 Franklin Ave., Bronx, New York City. (Linguistic Science)
- 1928 Prof. Tom Peete Cross, Univ. of Chicago, Chicago, Ill.
- 1926 Prof. G. O. Curme, Lunt Library, Evanston, Ill. (Germanic Phil., Northwestern Univ.)
- 1925 Prof. George H. Danton, Oberlin College, Oberlin, Ohio. (German)
- 1927 Mr. D. Sutherland Davidson, Univ. of Pennsylvania, Philadelphia, Pa. (Anthropology)
- FM Jaime de Angulo, Esq., 2815 Buena Vista Way, Berkeley, Calif. (American Linguistics)
- FM Prof. Victor de Beaumont, 73 Queen's Park, Toronto, Canada. (French, Univ. of Toronto)
- FM Prof. Roy Joseph Deferrari, Catholic Univ., Washington, D. C. (Latin)
- FM Prof. Norman W. DeWitt, Cornell Univ., Ithaca, N. Y. (Classics)
- 1925 Rev. Frederick W. Dickinson, College of Mt. St. Joseph, Mount St. Joseph, Ohio.
- FM Prof. Roland B. Dixon, Peabody Museum, Harvard Univ., Cambridge, Mass. (Anthropology)
- FM Prof. Raymond P. Dougherty, 319 Willow St., New Haven, Conn. (Assyriology, Yale Univ.)
- FM Prof. Henry Grattan Doyle, George Washington Univ., Washington, D. C. (Romance Langs.)
- FM Prof. Douglas L. Drew, Swarthmore Col., Swarthmore, Pa. (Greek)
- FM Prof. Joseph Dunn, Catholic Univ., Washington, D. C. (Celtic and Romance Phil.)
- 1925 Prof. C. L. Durham, Cornell Univ., Ithaca, N. Y. (Latin)
- FM Prof. Clarence W. Eastman, 18 Northampton Road, Amherst, Mass. (German, Amherst Col.)



- 1927 Miss Helen S. Eaton, 79 Washington Place, New York City.  
(Linguistic Research Assistant to the International Auxiliary  
Language Association)
- SC Prof. Franklin Edgerton, 408 Whitney Av., New Haven, Conn.  
(Sanskrit, Yale Univ.)
- 1928 Prof. F. C. Edwards, Univ. of Louisville, Louisville, Ky. (Ger-  
manic and Romance Langs.)
- 1928 Mr. Arthur G. Eichelberger, Room 16 Varick House, 11  
Dominick St., New York City. (Latin, New York Univ.)
- FM Prof. Wallace S. Elden, Ohio State Univ., Columbus, Ohio.  
(Latin)
- 1928 Prof. Emeritus H. C. Elmer, Cornell Univ., Ithaca, N. Y.  
(Latin)
- 1928 Dr. Murray B. Emeneau, Box 1910 Yale Sta., New Haven, Conn.  
(Classics, Yale Univ.)
- 1928 Miss Alma Waldron Erswell, 503 N. Chester Road, Swarthmore,  
Pa. (Phonetics)
- FM Prof. Erwin A. Esper, Univ. of Washington, Seattle, Wash.  
(Psychology)
- SC Prof. Aurelio M. Espinosa, Stanford Univ., Calif. (Romanic  
Langs.)
- FM Mr. B. R. Ewing, Jr., Washington and Lee Univ., Lexington,  
Va. (Romance Langs.)
- 1926 Prof. Oscar F. W. Fernsemer, Hunter College, 66 Court St.,  
Brooklyn, N. Y. (German)
- 1928 Prof. Gilbert Malcolm Fess, 311 Hitt St., Columbia, Mo.  
(French, Univ. of Missouri)
- 1927 Prof. Edward Fitch, Hamilton College, Clinton, N. Y. (Greek)
- SC Prof. George T. Flom, 611 W. Green St., Urbana, Ill. (Scandi-  
navian Langs., and Lits., Univ. of Illinois)
- FM Mr. Maynard D. Follin, Box 118, Detroit, Mich.; winter address,  
Dunedin, Fla.
- FM Prof. Frank H. Fowler, Univ. of Arizona, Tucson, Ariz. (Clas-  
sical Langs.)
- FM Prof. Charles S. Fox, 445 High St., Bethlehem, Pa. (Romance  
Langs., Lehigh Univ.)
- 1928 Dr. Louise G. Frary, 5049 Dupont Av. South, Minneapolis,  
Minn.
- FM Prof. Charles C. Fries, 7 Harvard Place, Ann Arbor, Mich.  
(English, Univ. of Michigan)

- FM Dr. Henry S. Gehman, 5720 N. 6th St., Philadelphia, Pa. (Modern Langs., S. Phila. High School)
- FM Mr. E. A. Gellot, 290 Broadway, New York City. (Artist)
- FM Prof. D. M. Gilbert, Albion College, Albion, Mich. (Modern Langs.)
- 1928 Mr. S. R. Gilcreast, Williams College, Williamstown, Mass.
- 1928 Prof. F. W. Gingrich, Schuylkill College, Reading, Pa. (Greek)
- SC Dr. Pliny E. Goddard, American Museum of Natural History, New York City. (Ethnology) Died July 13, 1928.
- 1926 Prof. Charles Goetsch, Univ. of Chicago, Chicago, Ill. (Germanic Phil.)
- FM Rabbi Solomon Goldman, Jewish Center, Cleveland, Ohio.
- 1927 Miss Jane F. Goodloe, Homewood Apartments, Baltimore, Maryland.
- 1928 Prof. Willem L. Graff, McGill Univ., Montreal, Canada. (Germanic Langs.)
- 1928 Prof. Charles H. Grandgent, 107 Walker St., Cambridge, Mass. (Romance Langs., Harvard Univ.)
- 1925 Prof. Claudine Gray, Hunter College, New York City. (French)
- SC Prof. Louis H. Gray, Columbia Univ., New York City. (Oriental Langs.)
- 1928 Prof. Ina May Greer, S. D. State College, Brookings, S. D. (English and German)
- 1928 Mr. Mack Hall Griffin, Univ. of North Carolina, Chapel Hill, N. C. (Latin and Greek)
- 1926 Prof. Charles Grimm, Williams Col., Williamstown, Mass. (Romanic Langs.)
- 1927 Prof. Wren Jones Grinstead, Univ. of Pennsylvania, Philadelphia, Pa. (Education)
- 1927 Mr. John F. Gummere, Wm. Penn Charter School, Germantown, Philadelphia, Pa. (Languages)
- 1925 Dr. August Günther, Staatl. Sonderlateinklassen, Illingen, Saar. (Lettic)
- FM Prof. Luise Haessler, Butler Hall, 400 W. 119th St., New York City. (German, Hunter College)
- FM Prof. E. Adelaide Hahn, 640 Riverside Drive, New York City. (Greek and Latin, Hunter Col.)
- FM Prof. Emeritus Wm. Gardner Hale, Van Rensselaer Av., Stamford, Conn. (Latin, Univ. of Chicago) Died June 23, 1928.

- FM Prof. A. Irving Hallowell, Univ. of Pennsylvania, Philadelphia, Pa. (Anthropology)
- FM Mr. Joel Hatheway, 15 Beacon St., Boston, Mass. (Chairman of the Board of Examiners of the Bureau of Education)
- 1928 Frank Hawley, Esq., 56 Stanley St., Norton-on-Tees, Durham, England.
- 1927 Mr. Paul R. Hays, 510 Hamilton Hall, Columbia Univ., New York City. (Greek and Latin)
- 1926 Dr. R.-M. S. Heffner, 10 Belton St., Arlington, Mass. (German, Harvard Univ.)
- 1926 Prof. J. W. Hewitt, Wesleyan Univ., Middletown, Conn. (Classics)
- 1928 Dr. Archibald A. Hill, Univ. of Michigan, Ann Arbor, Mich. (English)
- 1926 Prof. Raymond T. Hill, 902 Yale Sta., New Haven, Conn. (French, Yale Univ.)
- FM Prof. Elijah Clarence Hills, Univ. of California, Berkeley, Calif. (Romance Phil.)
- 1925 Mr. Edward M. Hinton, 720 Blythe Av., Drexel Hill, Pa. (English, Univ. of Tenn.)
- 1927 Prof. Philip K. Hitti, 14 Wilton St., Princeton, N. J. (Semitic Lit., Princeton Univ.)
- FM Mr. F. W. Hodge, Museum of the American Indian, New York City.
- FM Prof. Urban T. Holmes, Univ. of North Carolina, Chapel Hill, N. C. (French)
- 1925 Prof. Emeritus E. Washburn Hopkins, 299 Lawrence St., New Haven, Conn. (Sanskrit and Comparative Phil., Yale Univ.)
- FM Mrs. Francis W. Hopkins (Grace Sturtevant), 548 Orange St., New Haven, Conn. (Classics)
- 1926 Prof. Robert C. Horn, Muhlenberg Col., Allentown, Pa. (Greek)
- FM Prof. J. Preston Hoskins, 10 College Road, Princeton, N. J. (Germanic Langs. and Lit., Princeton Univ.)
- FM Prof. Harry M. Hubbell, 484 Yale Av., New Haven, Conn. (Greek and Latin, Yale Univ.)
- FM A. M. Huntington, Esq., 1 E. 89th St., New York City. (Author) Benefactor, 1927.
- 1926 Mr. Stephen A. Hurlbut, St. Alban's School, Washington, D. C. (Latin and Greek)

- FM Mr. William A. Hurwitz, 2614 N. 16th St., Philadelphia, Pa.  
(Languages, W. Phila. High School)
- 1926 Prof. H. Hyvernath, 3405 Twelfth St., N. E., Brookland, D. C.  
(Semitic Langs. and Lits., Catholic Univ.)
- FM Prof. Sanki Ichikawa, 25 Kitayamabushicho, Ushigome, Tokyo,  
Japan. (English, Tokyo Imperial Univ.)
- 1927 Mr. Charles P. Iwanicki, 98 E. Frambes Av., Columbus, Ohio.  
(Greek and Latin, Ohio State Univ.)
- 1928 Prof. A. V. Williams Jackson, Columbia Univ., New York City.  
(Indo-Iranian Langs.)
- FM Prof. Cary F. Jacob, 10 West St., Northampton, Mass. (Spoken  
English, Smith Col.)
- 1928 Dr. Melville Jacobs, Univ. of Washington, Seattle, Wash.  
(Anthropology)
- 1928 Mr. Sidney Jaffe, 5365 Diamond St., Philadelphia, Pa.
- 1928 Prof. T. Atkinson Jenkins, 5411 Greenwood Av., Chicago, Ill.  
(History of the French Lang., Univ. of Chicago)
- FM Mr. Waldemar Jochelson, American Museum of Natural History,  
New York City. (East Siberian and Aleutian Dialects)
- 1927 Prof. Oliver M. Johnston, Box 1132, Stanford University, Calif.  
(Romanic Langs.)
- FM Prof. J. R. Kantor, Indiana Univ., Bloomington, Ind. (Psy-  
chology)
- FM Prof. Oscar L. Keith, Univ. of South Carolina, Columbia, S. C.  
(Romance Langs.)
- FM Prof. May Lansfield Keller, Westhampton College, Univ. of  
Richmond, Va. (English)
- FM Miss Ruth M. Keller, 568 S. Champion Av., Columbus, Ohio.
- 1925 Prof. G. D. Kellogg, Union Col., Schenectady, N. Y. (Latin)
- FM Prof. Robert J. Kellogg, Ottawa Univ., Ottawa, Kans. (Modern  
Langs. and Linguistics)
- FM Prof. John M. Kelso, 406 N. Bradford St., Dover, Dela. (An-  
cient Langs., Wesley Collegiate Inst.)
- 1928 Prof. Hayward Keniston, Univ. of Chicago, Chicago, Ill.  
(Spanish Lang.)
- FM Prof. Arthur G. Kennedy, 435 Coleridge Av., Palo Alto, Calif.  
(English Phil., Stanford Univ.)
- SC Prof. Roland G. Kent, Univ. of Pennsylvania, Philadelphia, Pa.  
(Comparative Phil.) Life Member, 1927.

- FM Prof. J. Alexander Kerns, 123 Park St., Walla Walla, Wash.  
(Latin, Whitman Col.)
- 1927 Prof. Watson Kirkconnell, Wesley College, Univ. of Manitoba,  
Winnipeg, Canada. (English)
- FM Mr. Eugene Klein, 200 S. 13th St., Philadelphia, Pa. (Phi-  
latelist; collector of Oriental manuscripts)
- 1927 Prof. James A. Kleist, St. Louis Univ., Grand and Pine Blvds.,  
St. Louis, Mo. (Classical Langs.)
- FM Prof. Charles Knapp, 1737 Sedgwick Av., New York City.  
(Greek and Latin, Columbia Univ.)
- FM Prof. William E. Knickerbocker, College of the City of New  
York, New York City. (Romance Langs.)
- 1926 Mrs. Elizabeth Knott (Mrs. J. P.), 7735 Haskins Av., Chicago,  
Ill. (Classical Archaeology)
- 1926 Mr. T. A. Knott, 30 Firglade Av., Springfield, Mass. (General  
Editor of Webster's New International Dictionary)
- FM Prof. Selma S. König, Carthage College, Carthage, Ill. (German  
and French)
- FM Mr. Franklin B. Krauss, Univ. of Pennsylvania, Philadelphia, Pa.  
(Latin)
- SC Prof. A. L. Kroeber, Univ. of California, Berkeley, Calif. (An-  
thropology)
- 1926 Prof. Samuel Kroesch, Univ. of Minnesota, Minneapolis, Minn.  
(German)
- FM Prof. Hans Kurath, Ohio State Univ., Columbus, Ohio. (Ger-  
man)
- FM Prof. A. G. Laird, Univ. of Wisconsin, Madison, Wis. (Greek)
- 1927 Prof. Emeritus Henry R. Lang, Box 176, Yale Sta., New Haven,  
Conn. (Romance Langs., Yale Univ.)
- FM Prof. Philippe de La Rochelle, Columbia Univ., New York City.  
(French)
- 1928 Prof. Henning Larsen, Woodlawn Apts., Iowa City, Iowa.  
(English, State Univ. of Iowa)
- FM Dr. Berthold Laufer, Field Museum of Natural History, Chicago,  
Ill. (Eastern Asiatic Langs.)
- FM Prof. Emory B. Lease, Hudson View Gardens, 183d St. and  
Pinehurst Av., New York City. (Classical Langs., Col. of  
City of New York)
- FM Miss Mary S. Lee, 879 Wynnewood Road, Philadelphia, Pa.  
(Latin, W. Phila. High School)



- 1925 Prof. W. E. Leonard, Univ. of Wisconsin, Madison, Wis. (English)
- 1928 Prof. W. Leopold, Northwestern Univ., Evanston, Ill. (German)
- 1927 Dr. Fang-Kuei Li, care of Dr. Yi Li, Medical Institute Sun Yatsen Univ., Canton, China.
- SC Prof. M. H. Liddell, 224 Waldron St., West Lafayette, Ind. (English, Purdue Univ.)
- 1928 Mr. Edward Y. Lindsay, Univ. of Vermont, Burlington, Vt. (Latin)
- 1927 Prof. Charles E. Little, Peabody College, Nashville, Tenn. (Latin)
- FM Mrs. Robert M. Littlejohn (Rebecca Bolling), 23 E. 67th St., New York City. Benefactor, 1927.
- 1926 Mrs. Harriet Allison Loeb (Mrs. Edwin M.), 97 Tamalpais Road, Berkeley, Calif.
- 1926 Prof. Wesley R. Long, Tarkio College, Tarkio, Mo. (Modern Langs.)
- SC Prof. C. M. Lotspeich, Univ. of Cincinnati, Cincinnati, Ohio. (Comparative and English Phil.)
- FM Prof. Clarence G. Lowe, Univ. of Nebraska, Lincoln, Neb. (Classics)
- 1925 Prof. Hugh S. Lowther, San Gabriel, Calif. (Latin, Occidental Col.)
- FM Prof. Wm. F. Luebke, Univ. of Denver, Denver, Colo. (English)
- 1925 Prof. Benjamin F. Luker, Univ. of Florida, Gainesville, Fla. (French)
- 1927 Prof. Max A. Luria, 497 Kosciusko St., Brooklyn, N. Y. (Spanish, Col. of the City of New York)
- 1926 Mr. Alfons S. Lusenbergl, 5 W. 125th St., New York City. (Immigration Secy. of the Y. M. C. A., Ellis Island)
- FM Dr. R. C. MacMahon, 78 W. 55th St., New York City. (Bibliophile and Bookseller)
- 1928 Prof. Grace Harriet Macurdy, Vassar College, Poughkeepsie, N. Y. (Greek)
- 1927 Prof. Ralph V. D. Magoffin, New York Univ., University Heights, New York City. (Classics)
- 1926 Dr. F. P. Magoun, Jr., 18 Farwell Place, Cambridge, Mass. (English, Harvard Univ.)
- 1925 Prof. August C. Mahr, Box 63, Stanford University, Calif. (Germanic Langs.)

- FM Prof. Gaston Louis Malécot, Washington and Jefferson Col., Washington, Pa. (Romance Langs.)
- FM Prof. Kemp Malone, Johns Hopkins Univ., Baltimore, Md. (English)
- SC Prof. John M. Manly, Univ. of Chicago, Chicago, Ill. (English)
- FM Prof. Clarence A. Manning, 25 East View Av., Pleasantville, N. Y. (Slavonic Langs., Columbia Univ.)
- FM Dr. Ralph Marcus, 531 W. 124th St., New York City. (Semitic Langs. and Hellenistic Judaism, Jewish Institute of Religion)
- 1927 Mr. J. V. Martin, 10 Aoyama Gakuin, Tokyo, Japan.
- FM Prof. Nicholas N. Martinovitch, Columbia Univ., New York City. (Slavonic and Oriental Langs.)
- 1926 Dr. J. Alden Mason, Univ. of Penna. Museum, Philadelphia, Pa. (Curator, American Section)
- FM Prof. E. K. Maxfield, 311 E. Beau St., Washington, Pa. (English, Washington and Jefferson Col.)
- FM Prof. Nelson G. McCrea, Columbia Univ., New York City. (Latin)
- 1927 Prof. Ida Kruse McFarlane, 1473 Gilpin St., Denver, Colo. (English Lit., Univ. of Denver)
- 1926 Mr. O. W. McMillen, Director of Canton Union Language School, Canton, China.
- 1926 Prof. C. L. Meader, Univ. of Michigan, Ann Arbor, Mich. (Latin, Sanskrit, General Linguistics)
- FM Prof. Clarence W. Mendell, Yale Univ. New Haven, Conn. (Latin)
- 1926 Prof. Edgar A. Menk, Univ. of N. Dakota, Grand Forks, N. D. (Classical Langs. and Lits.)
- FM Prof. Robert J. Menner, 1827 Yale Sta., New Haven, Conn. (English, Yale Univ.)
- FM Prof. E. H. Mensel, 146 Elm St., Northampton, Mass. (Germanic Langs. and Lits., Smith Col.)
- FM Prof. Albert Douglas Menut, Syracuse Univ., Syracuse, N. Y. (Romance Langs.)
- FM Prof. Samuel A. B. Mercer, Trinity College, Toronto, Canada (Semitic Langs. and Egyptology); summer address, Grafton, Mass.
- 1925 Prof. W. S. Messer, Dartmouth Col., Hanover, N. H. (Latin)
- 1927 Prof. Charles A. Messner, State Teachers College, Buffalo, N. Y. (Latin)

- 1928 Mr. Leopold L. Meyer, Foley Bros. Dry Goods Co., Houston, Tex. (Prest., National Retail Credit Assn.)
- SC Prof. Truman Michelson, Smithsonian Institution, Washington, D. C. (Ethnology, George Washington Univ.; Ethnologist, Smithsonian Inst.)
- FM Prof. C. W. E. Miller, Johns Hopkins Univ., Baltimore, Md. (Greek)
- 1927 Prof. Philip S. Miller, Lincoln University P. O., Pa. (Latin, Lincoln Univ.)
- FM Mr. Louis A. Mischkind, Box 154, Wilmington, Del. (Rabbi)
- 1927 Prof. B. S. Monroe, Cornell Univ., Ithaca, N. Y. (English)
- FM Prof. Olin H. Moore, Ohio State Univ. Columbus, Ohio. (Romance Langs.)
- FM Prof. Samuel Moore, 1503 Cambridge Road, Ann Arbor, Mich. (English, Univ. of Michigan)
- 1927 F. Corlies Morgan, Esq., 8625 Montgomery Av., Chestnut Hill, Philadelphia, Pa. (Treasurer of the Univ. of Pennsylvania)
- 1927 Mr. Dave H. Morris, 19 E. 70th St., New York City. (Lawyer)
- FM Mrs. Dave Hennen Morris, 19 E. 70th St., New York City. (International Auxiliary Language)
- FM Prof. Henri F. Muller, Barnard College, New York City. (French)
- FM Prof. Otto Müller, Gettysburg College, Gettysburg, Pa. (Romance Langs.)
- 1928 Miss Florence M. Newham, 137 W. 69th St., New York City. (Etymology of medical and biological technical terms)
- FM Prof. Edward W. Nichols, Dalhousie College, Halifax, Nova Scotia. (Classics)
- 1925 Prof. Wm. A. Nitze, 1220 E. 56th St., Chicago, Ill. (Romance Langs., Univ. of Chicago)
- 1926 Prof. Clark S. Northup, 407 Elmwood Av., Ithaca, N. Y. (English, Cornell Univ.)
- 1926 Prof. G. R. Noyes, 1486 Greenwood Terrace, Berkeley, Calif. (Slavonic Langs., Univ. of California)
- 1925 Prof. Alois Richard Nykl, Marquette Univ., Milwaukee, Wis. (Spanish)
- FM Prof. Merle M. Odgers, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)

- FM Dr. Felix von Oefele, 326 E. 58th St., New York City. (Medical Chemist)
- FM Dr. Charles J. Ogden, 628 W. 114th St., New York City. (Indo-Iranian)
- 1925 Prof. M. B. Ogle, Ohio State Univ., Columbus, Ohio. (Classical Langs.)
- 1925 Prof. W. A. Oldfather, Univ. of Illinois, Urbana, Ill. (Classical Langs.)
- FM Prof. Samuel Grant Oliphant, 520 Stewart Av., Grove City, Pa. (Greek and Sanskrit, Grove City College)
- FM John Rathbone Oliver, M.D., Latrobe Apts., Read and Charles Sts., Baltimore, Md. (Physician, Psychiatrist, Criminologist)
- 1925 Prof. Fernando Ortiz, L. and 27th Sts., Vedado, Havana, Cuba. (Lawyer; formerly prof. in Univ. of Havana)
- FM Prof. Roscoe E. Parker, Univ. of Tennessee, Nashville, Tenn. (English)
- FM Prof. C. E. Parmenter, Univ. of Chicago, Chicago, Ill. (Romance Langs.)
- FM Dr. John J. Parry, 805 W. Iowa St., Urbana, Ill. (English, Univ. of Illinois)
- 1927 Prof. Milman Parry, Drake Univ., Des Moines, Iowa. (Classics)
- FM Dr. Elsie Clews Parsons, Harrison, N. Y. (Anthropologist)
- 1925 Prof. Clarence Paschall, Univ. of California, Berkeley, Calif. (German)
- FM Mr. Wallace W. Perkins, 937 Main St., Woburn, Mass. (French, Butler Univ., Indianapolis)
- FM Rev. T. C. Petersen, Catholic Univ. of America, Washington, D. C. (Semitics)
- SC Prof. Walter Petersen, 750 Franklin St., Gainesville, Fla. (Ancient Langs., Univ. of Florida)
- 1925 Robert Morris Pierce, 15 W. 18th St., New York City. (Author)
- FM Dr. George A. Plimpton, 70 Fifth Av., New York City. (Publisher)
- 1928 Mr. Horace I. Poleman, Pomfret School, Pomfret, Conn. (Latin and Greek)
- FM Prof. Louise Pound, Univ. of Nebraska, Lincoln, Neb. (English)
- 1928 Mr. H. M. Poynter, Phelps House, Andover, Mass. (Latin, Andover Acad.)
- FM Prof. Henrietta Prentiss, Hunter College, New York City. (Speech and Dramatics)

- 1927 Prof. Francis R. Preveden, 6455 Greenwood Av., Chicago, Ill.  
(DePaul Univ.; research asst. in Comp. Philology, Univ. of Chicago)
- 1926 Prof. Lester M. Prindle, 96 Henry St., Burlington, Vt. (Latin, Univ. of Vermont)
- SC Prof. Edward Prokosch, 10 Hollywood Drive, Hastings-on-Hudson, N. Y. (Germanic Phil., New York Univ.)
- 1925 Prof. Lawrence Pumpelly, 604 E. Buffalo St., Ithaca, N. Y. (Romance Langs., Cornell Univ.)
- 1928 Prof. Paul Radin, Fisk Univ., Nashville, Tenn. (Anthropology)
- 1926 Mr. Allen Walker Read, St. Edmund Hall, Oxford, England. (English)
- 1925 Prof. William A. Read, 344 Napoleon St., Baton Rouge, La. (English, Louisiana State Univ.)
- 1926 Prof. Homer F. Rebert, Amherst Col., Amherst, Mass. (Latin)
- 1928 Prof. Frank Otis Reed, Univ. of Arizona, Tucson, Ariz. (Spanish) Died Dec. 8, 1928.
- 1925 Prof. Wm. P. Reeves, Kenyon College, Gambier, Ohio. (English)
- FM Prof. Nathaniel Julius Reich, 309 N. 33d St., Philadelphia, Pa. (Egyptology, Dropsie Col.)
- FM Prof. Arthur F. J. Remy, Columbia Univ., New York City. (Germanic Phil.)
- 1928 Dr. Karl Reuning, Michaelisstr. 113, Breslau 16, Germany. (Anglistik, Univ. of Breslau)
- 1928 Mr. Allan Lake Rice, 4217 Osage Av., Philadelphia, Pa. (Germanics)
- 1928 Prof. Carlton C. Rice, Catawba College, Salisbury, N. C. (Romance Langs.)
- FM Mrs. Edward Norris Rich, Jr. (Charlotte Townsend Littlejohn), 110 University Parkway, Baltimore, Md. Benefactor, 1927.
- 1926 Prof. Henry Brush Richardson, 202 Yale Sta., New Haven, Conn. (French, Yale Univ.)
- 1925 Prof. Ernst Riess, Hunter Col., New York City. (Classical Langs.)
- 1925 Prof. D. M. Robinson, Johns Hopkins Univ., Baltimore, Md. (Archaeology, Epigraphy, Greek Lit.)
- 1926 Prof. Fred N. Robinson, Longfellow Park, Cambridge, Mass. (English, Harvard Univ.)



- FM Jas. Renwick Rodgers, Esq., 400 Walnut St., Philadelphia, Pa.  
(Insurance Broker)
- 1926 Dr. Ludwig Röhrsheim, Calzada de la Piedad 81, Mexico City,  
Mexico. (Spanish)
- 1928 Mr. Harold Rosen, 5755 N. 12th St., Philadelphia, Pa. (Latin)
- FM Prof. S. L. Millard Rosenberg, Univ. of California (Southern  
Branch), Los Angeles, Calif. (Spanish)
- FM Prof. G. Oscar Russell, Ohio State Univ., Columbus, Ohio.  
(Romance Langs.)
- 1927 Prof. Leo Erval Saidla, 95 Livingston St., Brooklyn, N. Y.  
(English, Brooklyn Polytechnic Inst.)
- FM Prof. Else M. Saleski, St. Lawrence Univ., Canton, N. Y.  
(German)
- 1928 Miss Mary Saleski, Meranerweg 31, Leipzig 0 27, Germany.
- FM Prof. R. E. Saleski, Bethany College, Bethany, W. Va. (German)
- 1927 Mr. William Callier Salley, Box 1171, Chapel Hill, N. C. (Span-  
ish, Univ. of North Carolina)
- SC Prof. Edward Sapir, Univ. of Chicago, Chicago, Ill. (An-  
thropology and General Linguistics)
- 1928 Prof. John A. Sawhill, State Teachers College, Harrisonburg,  
Va. (Latin)
- FM Prof. Nathaniel Schmidt, Cornell Univ., Ithaca, N. Y. (Semitic  
Langs. and Oriental History)
- FM Prof. Alexander H. Schutz, Ohio State Univ., Columbus, Ohio.  
(Romance Langs.)
- FM Mr. C. R. J. Scott, Univ. of Pennsylvania, Philadelphia, Pa.  
(Latin)
- FM Prof. Emeritus Fred Newton Scott, 1914 East First St., Tucson,  
Ariz. (Rhetoric and Journalism, Univ. of Michigan)
- FM Prof. H. F. Scott, Ohio Univ., Athens, O. (Classical Langs.)
- 1928 Prof. Kenneth Scott, Box 1959 Yale Sta., New Haven, Conn.  
(Latin, Yale Univ.)
- FM Prof. Robert D. Scott, Univ. of Nebraska, Lincoln, Neb. (Eng-  
lish Dramatic Lit.)
- 1926 Prof. Edward H. Sehrt, George Washington Univ., Washington,  
D. C. (German)
- FM Prof. Ovid R. Sellers, 846 Chalmers Place, Chicago, Ill. (Hebrew  
and Old Testament, McCormick Theological Seminary)
- FM Prof. W. T. Semple, 315 Pike St., Cincinnati, Ohio. (Classics,  
Univ. of Cincinnati)

- FM Prof. J. E. Shaw, Univ. of Toronto, Toronto, Canada. (Italian and Spanish)
- FM Prof. Percy V. D. Shelly, Univ. of Pennsylvania, Philadelphia, Pa. (English)
- FM Prof. William P. Shepard, Hamilton Col., Clinton, N. Y. (Romance Langs.)
- FM Dean L. A. Sherman, Univ. of Nebraska, Lincoln, Neb. (English Lit.)
- FM Mr. George W. H. Shield, 1537 W. 46th St., Los Angeles, Calif. (Supervisor of Modern Langs., City Schools)
- FM Prof. Daniel B. Shumway, Univ. of Pennsylvania, Philadelphia, Pa. (German Phil.)
- 1925 Prof. George William Small, Univ. of Washington, Seattle, Wash. (English)
- FM Miss Maria W. Smith, 1529 Spruce St., Philadelphia, Pa. (Latin, Temple Univ.)
- FM Prof. Antonio G. Solalinde, Centro de Estudios Historicos, Almagro 26, Madrid, Spain. (Romance Langs.)
- FM Prof. Frank G. Speck, Univ. of Pennsylvania, Philadelphia, Pa. (Anthropology)
- FM Prof. E. A. Speiser, Univ. of Pennsylvania, Philadelphia, Pa. (Semitics)
- FM Arthur R. Spencer, Esq., Univ. of Pennsylvania, Philadelphia Pa. (Asst. to Dean of the College)
- 1925 Miss Esther Jean Spencer, Box 2595, Los Angeles, Calif. (Latin, Lincoln High School, Los Angeles)
- FM Prof. Taylor Starck, 32 Bowdoin St., Cambridge, Mass. (German, Harvard Univ.)
- 1926 Madame Nadine Stchoupak, 7 rue Leclerc, Paris XIV, France. (Literary Work)
- 1925 Prof. J. B. Stearns, 4 College St., Hanover, N. H. (Latin and Greek, Dartmouth Col.)
- FM Prof. Guido H. Stempel, 723 S. Park Av., Bloomington, Ind. (Comparative Phil., Indiana Univ.)
- 1928 Mr. J. Frank Stimson, Boite 59, Papeete, Tahiti. (Research Asst., Ethnology and Linguistics, Bishop Museum, Honolulu)
- FM Prof. Harold S. Stine, 242 E. Durham St., Philadelphia, Pa. (English, Univ. of Pennsylvania)
- 1928 Mr. Arthur C. Streufert, Prairie View, Ill.

- 1928 Mr. George K. Strodach, 6906 Henley St., Philadelphia, Pa.  
(Latin, Univ. of Pennsylvania)
- 1926 Prof. Cony Sturgis, Box 6, Oberlin, Ohio. (Spanish, Oberlin  
Col.)
- FM Prof. Albert Morey Sturtevant, 924 Louisiana St., Lawrence,  
Kans. (Germanic Langs. and Lits., Univ. of Kansas)
- SC Prof. Edgar Howard Sturtevant, 1849 Yale Sta., New Haven,  
Conn. (Linguistics and Comp. Phil., Yale Univ.)
- 1928 Mr. L. L. Stutzmann, 125 Railroad St., Palmyra, Pa. (German,  
Schuylkill Col.)
- SC Dr. John R. Swanton, Smithsonian Institution, Washington,  
D. C. (Ethnologist)
- 1928 Prof. T. Takehara, 60, Harada-Mura, Nishinida, Kobe, Japan.
- 1926 Prof. Rollin H. Tanner, New York Univ., University Heights,  
New York City. (Classics)
- FM Prof. Helen H. Tanzer, 208 E. 15th St., New York City. (Clas-  
sics, Hunter Col.)
- 1926 Prof. John S. P. Tatlock, 9 Phillips Place, Cambridge, Mass.  
(English, Harvard Univ.)
- FM Mr. Nainsinh Thakar, 359 Mosholu Parkway North, New York  
City. (Comp. Phil.)
- FM Prof. Wm. N. Thomas, 414 S. 79th St., Birmingham, Ala.  
(Classics, Howard Col.)
- 1927 Prof. Charles C. Torrey, 191 Bishop St., New Haven, Conn.  
(Semitic Langs., Yale Univ.)
- FM Mr. Gus Trau, 215 W. 92d St., New York City. (Manufacturer  
and Merchant)
- 1928 Prof. Frederick Tupper, Univ. of Vermont, Burlington, Vt.  
(English)
- FM Prof. Milton Haight Turk, 40 Park Place, Geneva, N. Y. (Eng-  
lish, Hobart Col.)
- 1928 Prof. Pauline Turnbull, Westhampton College, Univ. of Rich-  
mond, Va. (Latin)
- FM Edwin H. Tuttle, Esq., The Sunbury, Apt. 405, 1212 M St.  
N. W., Washington, D. C.; summer address, 105 Ridge Road,  
North Haven, Conn. (Writer)
- FM Prof. Axel Johann Uppvall, Univ. of Pennsylvania, Philadelphia,  
Pa. (Scandinavian Langs.)
- FM Prof. Harry B. Van Deventer, Univ. of Pennsylvania, Phila-  
delphia, Pa. (Latin)

- 1926 Prof. George Van Santvoord, Hotchkiss School, Lakeville, Conn.  
(Headmaster)
- 1925 Prof. H. H. Vaughan, Univ. of California, Berkeley, Calif.  
(Italian)
- FM Prof. Marcel Henri Vigneron, New York Univ., Washington  
Sq., New York City. (French)
- 1927 Prof. Ernst Voss, 173 Virginia Terrace, Madison, Wis. (German  
Philology, Univ. of Wisconsin)
- 1928 Mr. Guenter K. Wagner, 500 Riverside Drive, New York City.  
(Anthropology)
- 1928 Samuel Frye Walcott, Esq., 139 Federal St., Salem, Mass.  
(Teacher of Music, Lawyer, Linguist)
- 1926 Prof. John A. Walz, 42 Garden St., Cambridge, Mass. (German  
Lang. and Lit., Harvard Univ.)
- FM Mr. James R. Ware, 41 Cottage St., Belmont, Mass. (Fellow in  
Chinese in the Harvard-Yenching Institute)
- 1927 Miss Florence Waterman, The Winsor School, Pilgrim Road,  
Boston, Mass. (Greek and Latin)
- FM Prof. Albert P. Weiss, Ohio State Univ., Columbus, Ohio.  
(Psychology)
- 1927 Prof. Camille E. Werling, Univ. of Denver, Denver, Colo.  
(Romance Langs.)
- 1927 Mr. H. Theodric Westbrook, Hamilton Hall, Columbia Univ.,  
New York City. (Classics)
- FM Prof. M. N. Wetmore, Williams College, Williamstown, Mass.  
(Latin)
- 1927 Prof. Joshua Whatmough, 11 B Morris Hall, Soldiers Field  
Sta., Boston, Mass. (Comp. Philology, Harvard Univ.)
- FM Judge James Wickersham, Juneau, Alaska. (Attorney at Law)
- 1926 Mr. Rowse B. Wilcox, Univ. of Nebraska, Lincoln, Neb.  
(English)
- 1928 Prof. Blanche Colton Williams, Hunter Col., New York City.  
(English)
- FM Prof. Charles Allyn Williams, 714 W. Nevada St., Urbana, Ill.  
(German, Univ. of Illinois)
- 1927 Prof. Edwin B. Williams, College Hall, Univ. of Penna., Phila-  
delphia, Pa. (Romanic Langs.)
- FM Prof. Edward J. Williamson, 40 Park Place, Geneva, N. Y.  
(Modern Langs., Hobart Col.)

- FM Prof. Ola Elizabeth Winslow, Goucher Col., Baltimore, Md. (English)
- 1926 Prof. Clark Wissler, Kent Hall, New Haven, Conn. (Anthropology and Psychology, Yale Univ.)
- 1926 Mr. H. Rey Wolf, 16 School Lane, Ardmore, Pa. (Latin, S. Phila. High School)
- 1928 Stuart N. Wolfenden, Esq., care of Messrs. Ward Perks and Terry, 85 Whitechurch St., London E. C., England. (Tibeto-Burman Langs.)
- FM Prof. Emeritus Francis A. Wood, 614 Oak Av., Clearwater, Fla. (Germanic Phil., Univ. of Chicago)
- 1928 Dr. Frederic T. Wood, 241 Merion Road, Merion, Pa. (Lithuanian)
- FM Prof. Willis P. Woodman, 808 Main St., Geneva, N. Y. (Latin, Hobart Col.)
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## THE TERM *ročvarmh* IN A TURKISH MANICHAEAN FRAGMENT

A. V. WILLIAMS JACKSON

COLUMBIA UNIVERSITY

[The term means 'Breastplate of Light', and is to be connected with an Avestan \**raoča.vārəθman-*. Discussion of the phonetic and morphologic questions raised by this interpretation.]

The term *ročvarmh* in a Turkish Manichaean text is thus far quotable only once, but is evidently of Iranian origin. It occurs in Le Coq's *Türkische Manichaica aus Chotscho*, III, p. 13, l. 11, near the middle of Fragment Nr. 6, iii. T. II, D. 173 c, 2, recto. Le Coq transcribes and translates the text (lines 10-11) as follows:

*bu bu bil gā kisi[ning]*  
*blgūsi . . (rot:) ročvarmh*  
'Dies (aber), dies ist das Anzeichen des  
weisen Mannes . . (rot) *ročvarmh*.'

It will be observed that in the manuscript this word *ročvarmh* (i.e. *rōčvārmh*, both vowels long) is written in red ink for emphasis and is preceded by two dots, a common punctuation mark which is here practically equivalent to a comma used to indicate that the term in question is included as a further explanation of the true sign of the wise man. The context shows that the sentence is complete, and it stands not far from the beginning of this forty-line Fragment, the whole of which relates to the Auditors and the proper use of the body (cf. also the summary of contents by Le Coq, *op. cit.* p. 4).

Perhaps we can do something towards determining the etymology and meaning of *ročvarmh* (*rōčvārmh*) as a Middle Persian word in the Turkish text. We certainly cannot connect it etymologically with the familiar term *brahm*, 'robe', in Turfan and Book Pahlavi, as designating in Manichaeism the raiment of light with which the Elect were invested on entering heaven, more especially because the Auditor could obtain that reward only through rebirth as an Elect;<sup>1</sup> but this designa-

<sup>1</sup> A collection of material relating to *brahm*, 'robe', is reserved for presentation elsewhere.

tion may perhaps give us a hint. In other words, Middle Persian *rōčvārmh* may possibly denote the spiritual covering of light with which the wise man, be he Auditor or Elect, is endued here on earth.<sup>2</sup> If this seemingly plausible surmise be correct, a possible etymology may be suggested.

The first element of the compound is of course Phl. *rōč*, 'light', Av. *raoča-*; that is simple enough. The second element, *-vārmh*, which is the main problem, I would now connect with Av. *vārəθman-* (neut.), 'covering, protection, corselet'. This Avestan substantive is a derivative from the root *var-*, 'to cover', see Bartholomae, *AirWb.* 1412, and observe likewise the associated compounds *zaranyō.vārəθman-* (1679), 'whose corselet is of gold', and *darəγō.vārəθman-* (695), 'granting long protection'.

It is necessary first to take up the general formation of Av. *vārəθman-* (Bthl. 1412), which shows the 'vrddhi' stage, as does also Av. *vāθman-* (1410), paralleling it likewise with Av. *raoθ.fraoθman-* (1513) and *hu-šōiθman-* (1839), though in the 'guṇa' stage. Comparing these with certain other words (Bthl. 1964) the division of suffixal types in Avestan would be,

<i>paθ-man-</i>	<i>vārə-θman-</i>
<i>rāθ-man-</i>	<i>vā-θman-</i>
<i>uruθ-man-</i>	<i>frao-θman-</i>
	<i>šōi-θman-</i>

Furthermore for the conglomerate *-t-man-* in *vārəθman-* (1412) compare Gk. *λαῖτμα* 'deep sea', *ἄετμα·φλόξ* (Hesych.), Anglo-Saxon *blōtsma* 'blossom' (Brugmann, *Grdr.*<sup>2</sup> 2. 1. 243; Brugmann-Thumb, *Griech. Gram.*<sup>4</sup> 222, even though the connection of any Av. forms with these has apparently not thus far been noted).

Assured, therefore, that the ending of Av. *vārəθman-* represents an original *-t-man* suffix, the phonetic changes involved in the development into TPhl. *vārmh* would be, first, that of an Early Iranian *θm* into Middle Persian *hm*, and then of this further into *mh*.<sup>3</sup>

Taking first the presumed change of *θm* into *hm*, we may cite in support of this the fact that Bartholomae, *Zum Sas. Recht* 1. 33-35, in *SHdbAW.* 1918, is inclined to allow the possibility of the develop-

<sup>2</sup> Merely for the metaphor, but not for any other reason, compare St. Paul's 'put on the armour of light' (Rom. 13. 12).

<sup>3</sup> While the latter transposition (*mh* for *hm*) recalls the familiar Indian pronunciation of Brahma as 'Bramha' we may omit this from the discussion here.

ment of Iran. *θn* into *hn*, and dialectically *sn*, in Av. *hapāθnī-* (Skt. *sapātnī-*), NP *vasnī* 'co-wife'. As indirectly similar, we might perhaps add Av. *paθana-* (if *paθ<sup>a</sup>na-*), NP *pahn* 'broad'. Thus, if *θn* gives *hn*, why should not *θm* give *hm*?

Lastly, we must consider that the metathesis of *hm* into *mh* may be due to some dialectic influence in the Central Asian region, like Sogdian, in which language *mh*, as final, is found. Although the four examples cited by R. Gauthiot, *Essai de Grammaire Sogdienne* 1. 174, are of different origin,<sup>4</sup> they at least show the existence of the group *mh* at the end of a word; moreover, metathesis plays a great rôle in Sogdian, compare also initially, *vxēbēh* = *xvēbēh* 'own'; and more especially recall in Turfan Pahlavi, *vrad* = *xvad* 'self', *vzaš-nām* = *xvaš-nām* 'good name', etc.<sup>5</sup> Therefore, in the present instance I would regard this group *mh* (for *hm*) simply as a transposition, like the common change of an older *xr* into *rx* in Later Iranian, see Gray, *Indo-Iranian Phonology* 238, b. In Armenian loan words we also have Iran. *θr* > *hr* > *rh*,<sup>6</sup> similarly we may explain here *θm* > *hm* > *mh*.

At all events, the etymology above proposed, to regard the Middle Persian word *ročvārmh* in this Turkish text as ultimately connected with an assumed Avestan *\*raočā.vārəθman-*, as a 'covering, or cuirass of light' (cf. Av. *raočā.aiwi.varəna*,<sup>7</sup> 'whose covering is the light', simply for the verbal composition, but not the precise meaning), is perhaps worth considering. The sign of the wise man in Manichaeism is the possession of the 'Breastplate of Light'.

<sup>4</sup> Gauthiot rightly explains the particular four instances of the group *mh* final cited in his case, namely, *βwmh*, 'world', *drγmh*, 'lie', *nrmh*, 'submission', *tmh*, 'darkness', as representing here an older *mah*, the respective preforms being *\*bhūm-as*, *\*drōgh-mas*, *\*narm-as* and *\*tam-as*. Our own case, however, is otherwise and certainly is to be explained by the common dialectic transposition referred to above.

<sup>5</sup> See Müller, 'Ein Doppelblatt', *APAW* 39-40, Berlin, 1913.

<sup>6</sup> See Hübschmann, *Arm. Gram.* 1. 12, Arm. *ašzarh*, 'country' < Av. *xšaθra*, TPhl. *šahr*; *murhak* 'document', cf. TPhl., NP *muhr* 'seal' (p. 197) with *nirh* 'slumber', Skt. *nidrā-* (p. 204); *šnorh* 'grace, favor' < Av. *xšnaoθra-* (p. 214), and other examples, p. 26, 31, 50, 59; cf. also Hübschmann, *Pers. Studien* 204-6.

<sup>7</sup> According to Theodore bar Khoni, Primal Man himself 'spread before him the light', as a protection, when going to do battle with the powers of Darkness. See Pognon, *Inscr. Mandaites* 186; Cumont, *Recherches* 1.18; cf. Schaefer, *Studien* 343.

## THE MEANING OF $\pi\omicron\upsilon$ IN HOMER

GEORGE MELVILLE BOLLING

OHIO STATE UNIVERSITY

[The etymological meaning 'somewhere' of this particle seems obsolete in the Homeric poems, in which it designates an emotional coloring that may be described as confident belief in something that cannot be demonstrated. Nowhere is it the expression of a doubt.]

Fundamental for any discussion of the meaning of  $\pi\omicron\upsilon$  in Homer is Wackernagel's treatment of the topic, *KZ* 33. 21-5 (1895). His purpose, the explanation of  $\pi\omicron\iota$  in Pindar, *Olymp.* 3. 4, *Pyth.* 5. 101, did not require completeness, but for fixing the meaning of  $\pi\omicron\upsilon$  in  $\beta$  164 completeness is necessary; and, as much of philological interest depends on the interpretation of that line, I shall endeavor to fill in what Wackernagel left traced in outline.

The etymological meaning 'somewhere' is obvious but it is also clear that from this meaning there has developed a use in which the particle gives merely an emotional coloring to the utterance. The latter is certainly (so Wackernagel) the more frequent usage in the poems, and perhaps we shall find reason to believe that it is indeed the only usage. Wackernagel describes it well by pointing to the occurrence of  $\pi\omicron\upsilon$  in 'behauptungen, von deren richtigkeit man ueberzeugt ist, die man aber nicht beweisen kann.'

Such feelings of confident belief in the unknown arise in one of three situations.

(1) When one speaks of the gods, of their doings, or of their belongings:

A 178  $\theta\epsilon\acute{o}s\ \pi\omicron\upsilon\ \sigma\omicron\iota\ \tau\acute{o}\ \gamma'\ \xi\delta\omega\kappa\epsilon\nu$ .

Wackernagel cites also B 116,  $\Gamma$  308, I 23, K 70, N 225,  $\Xi$  69, 120,  $\Phi$  83,  $\delta$  181,  $\zeta$  173,<sup>1</sup> 190,  $\iota$  262,  $\lambda$  139,  $\xi$  119, 227,  $\rho$  424,  $\tau$  80. To these may be added  $\Pi$  514,  $\delta$  74.

(2) When one speaks of the behavior or condition of absent<sup>2</sup> persons or things:

<sup>1</sup> Might also be put under (3) and compared with  $\nu$  418.

<sup>2</sup> Including those in past or imagined situations.

B 136 αἱ δὲ που ἡμέτεραί τ' ἄλοχοι καὶ νήπια τέκνα  
 εἶατ' ἐνὶ μεγάροις ποτιδόμεναι.

Wackernagel cites also Γ 43, I 628, K 326, Ξ 139, P 637, T 323, Ψ 460, Ω 488, α 304, β 164, δ 110, λ 449, ξ 42, τ 358, 370, and as similar Π 838, χ 322. I may add E 193, Ξ 144, Π 842, Φ 317, Ω 614, α 197, 199, δ 639, ζ 125, θ 255, 293, 491, μ 212, π 34, ϕ 398, ω 290 (cf. below). It may be noted that gods speak in human fashion not only when disguised (Ξ 144, α 199), but even (Φ 317, θ 293) in their own characters.

(3) When the attempt is made to fathom what is going on in another—to read his thoughts<sup>3</sup> and feelings:

E 473 φῆς που ἄτερ λαῶν πόλιν ἐξέμεν ἧδ' ἐπικούρων

Wackernagel cites also M 272, N 813, Π 830, Φ 583, X 331, κ 562, σ 382, φ 317. To these may be added A 124, I 40 (a question), K 105, O 43, Ω 736, β 320, θ 541, κ 380 (a question?), ν 418 (a question).<sup>3a</sup> Ordinarily the person whose 'mind is read' is the person addressed; exceptional are remarks (θ 541, φ 317) about a bystander, while K 105, O 43, Ω 736 concern the absent and so might have been placed under (2).

Using Bloomfield's formula<sup>4</sup> it may be said that the vocal-feature *που* is associated in these passages with a stimulus-feature, described above, that may be called the *pou*-feeling and with one of two<sup>5</sup> reaction-features: either the production of the *pou*-feeling; or the production of a feeling that might be expressed by an exclamation 'How clearly the speaker divines the situation!' What goes beyond this is extra-linguistic.

The remaining examples occur in situations of the same three types, but there are two complications. The simpler one includes the cases in which the *pou*-feeling applies to the whole utterance, not merely to the clause in which *που* stands—its position being determined merely by the fact that it is an enclitic. Ordinary conditional constructions illustrate this well. In them the *που* expresses confidence in the still untested truth of the conditional nexus. It might be expected in any ideal condition, but it is found only where exceptional intensity of feeling is evident. Thus in the bitter taunt:

Π 746 εἰ δὲ που καὶ πόντῳ ἐπ' ἰχθυόεντι γένοιτο  
 πολλοὺς ἂν κορέσειεν ἀνὴρ ὅδε τήθεα διφῶν.

<sup>3</sup> Including *φημι* of subvocal speech. Examples in past tenses E 473, Π 830, X 331, could also be placed under (2).

<sup>3a</sup> Might also be put under (1) and compared with ζ 173.

<sup>4</sup> 'A Set of Postulates for the Science of Language', LANGUAGE 2.154 (1926).

<sup>5</sup> Disregarding occasional examples in which the effect aimed at seems rather 'react to me as to one having the *pou*-feeling', cf. Π 514, λ 139.



Compare also:

P 102 εἰ δέ που Αἴαντός γε βοὴν ἀγαθοῖο πυθολίμην,  
ἄμφω κ' αὖτις ἰόντες ἐπιμνησάμεθα χάρμης.

ρ 475 ἀλλ' εἰ που πτωχῶν γε θεοὶ καὶ Ἑρινύες εἰσὶν,  
'Αντίοον πρὸ γάμοιο τέλος θανάτοιο κιχείη.

So also the disjunctive constructions (statements, questions, indirect questions) with *που* in the first member. Here the feeling is one of confidence in the completeness of the disjunction—that there is no other alternative. The examples are:

Λ 820 ἀλλ' ἄγε μοι τόδε εἰπέ, . . .

ἥ ῥ' ἔτι που σχήσουσι πελώριον Ἑκτορ' Ἀχαιοί,  
ἥ ἤδη φθίσονται ὑπ' αὐτοῦ δουρὶ δαμέντες;

N 456 διάνδιχα μερμήριξεν

ἥ τινά που Τρώων ἐταρίσσαιτο μεγαθύμων  
ἄψ' ἀναχωρήσας, ἥ πειρήσαιο καὶ οἶος.

And δ 833 (cf. ο 349, ω 263), ζ 278, ι 280, ρ 577, υ 340, ω 291.

Quite different is the effect when *που* stands in the last alternative. The particle then expresses the confidence of the speaker that this time he has hit the truth,<sup>6</sup> in some cases as an afterthought, in others as the most (or least) that can be true if the first alternative is false. The examples are:

E 812 ἀλλά σευ ἡ κάματος πολυάιξ γυῖα δέδυκεν  
ἥ νυ σέ που δέος ἴσχει ἀκήριον.

T 335 ἦδη γάρ Πηληϊά γ' οἶομαι ἥ κατὰ πάμπαν  
τεθνάνειν ἥ που τυτθὸν ἔτι ζῶντι ἀκαχῆσθαι.

And θ 584, ο 442, σ 329, τ 239, ω 111.

The other complication is due to a shift of meaning, the stimulus-feature changing from the *που*-feeling itself to a desire to produce the *που*-feeling as a reaction in others. The examples concern chiefly the situations of the third type. If those already given might be paraphrased 'I am sure without being told that you think', others to which we are coming may be paraphrased 'you should be sure without being told that I mean'. Accordingly the particle is used in self-evident restrictions—things that 'go without saying'—as in:

ξ 44 αὐτὰρ κείνος ἐελδόμενός που ἐδωδῆς  
πλάζετ' ἐπ' ἀλλοθρόων ἀνδρῶν δῆμόν τε πόλιν τε,  
εἰ που ἔτι ζῶει καὶ ὄρῃ φάος ἡελίοιο.

<sup>6</sup> Consequently no other alternative can be added, and ω 113 is to be recognized as an interpolation. There was previously reason to believe this, cf. my *External Evidence for Interpolation in Homer* 216 (Oxford: 1925). The line has recently been omitted by Bérard.

Compare *υ* 207, *Τ* 327, and *Ι* 371, *γ* 93 (= *δ* 323), *ζ* 179, *θ* 146, *ρ* 106, 510. Here may be noticed the phrase of politeness:

*δ* 193 *καὶ νῦν, εἴ τί που ἔστι, πίδαοί μοι,*

with which *ο* 403 may be compared. There is one example with a relative:

*Z* 330 *σὺ δ' ἂν μαχέσαιο καὶ ἄλλω*

*ὃν τινά που μεθιέντα ἴδοις.*

and one with *ὅτε*:

*κ* 486 *οἳ μὲν φθινύθουσι φίλον κῆρ*

*ἄμφο' ἔμ' ὀδυρόμενοι ὅτε που σύ γε νόσφι γένηται.*

Here may be put also the self-evident wish:

*O* 571 *εἴ τινά που Τρώων ἐξάλμενος ἄνδρα βάλοισθα.*

Finally in two passages I should recognize the extreme of this development.

*δ* 512 *σὸς δέ που ἔκφυγε κῆρας ἀδελφεὸς ἡδ' ὑπάλυξεν*

*ἐν νηυσὶ γλαφυρῇσι· σάωσε δὲ πότνια Ἥρη*

attracts attention because it is spoken by Proteus, who has—the poet is stressing this feature of his character—knowledge of the facts, and from whom accordingly a *που* statement is not to be expected. The reason apparently is that he is leaving these facts unrevealed; and so Menelaos will have to be sure of them without being told. All he could have said afterwards would have been *ἔμοδ' δέ που ἔκφυγε κῆρας ἀδελφεὸς ἐν νηυσίν*. Proteus intended to handle the fate of Odysseus in the same way, and consequently said:

*δ* 498 *εἰς δ' ἔτι που ζωὸς κατερύκεται εὐρέι πόντῳ*

The examples of *μή που* may be grouped together. Like those of the last paragraphs is:

*μ* 300 *ὁμόσσετε καρτερὸν ὄρκον*

*εἴ κέ τιν' ἡέ βοῶν ἀγέλην ἢ πῶν μέγ' οἰῶν*

*εὕρωμεν, μή ποῦ τις ἀτασθαλίῃσι κακῆσιν*

*ἢ βοῦν ἡέ τι μῆλον ἀποκτάνῃ.*

Odysseus' comrades should before being told know what the oath will be. The others refer to dangers of which the speaker has no definite knowledge, but which he apprehends with good reason and expects those addressed to apprehend in the same fashion. An example is:

*K* 511 *μή ποῦ τις καὶ Τρώας ἐγείρῃσιν θεὸς ἄλλος*

Others are *N* 293, *β* 179, *δ* 775, *ω* 462.

The examples of *εἴ που* (*ἦν που*) to indicate the purpose of an action may also be considered together. The examples are:

- H 39 Ἔκτορος ὄρωμεν κρατερὸν μένος ἵπποδάμοιο  
 ἦν τινά που Δαναῶν προκαλέσεται οἴσθεν οἶος.
- α 94 νόστον πευσόμενον πατρὸς φίλου, ἦν που ἀκούσῃ. (Cf. β 360, γ 83.)
- ε 417 εἰ δέ κ' ἔτι προτέρω παρανήξομαι, ἦν που ἐφύρω.
- ν 415 ὥχετο πευσόμενος μετὰ σὸν κλέος, εἰ που ἔτ' εἴης.
- Γ 450 Ἀτρεΐδης δ' ἂν ὄμιλον ἐφοίτα θηρὶ ἐοικώς,  
 εἰ που ἐσαυρήσειεν Ἀλέξανδρον θεοειδέα.
- Δ 88 διζημένη, εἰ που ἐφύροι. (Cf. E 168, N 760.)
- P 681 εἰ που Νέστορος υἱὸν . . . ἴδοιτο.
- ε 439 νῆχε παρέξ ἐς γαίαν ὀρώμενος, εἰ που ἐφύροι . . . .
- ι 418<sup>7</sup> χεῖρε πετάσσας | εἰ τινά που μετ' ὅεσσι λάβοι . . . .

These last examples and two (N 456, δ 639) in indirect discourse are the only instances in which *που* is found in the narrative. Such a distribution is not to be expected if *που* means 'somewhere', while it is the only natural one if the particle is merely giving emotional coloring to the utterance. I conclude therefore that the meaning 'somewhere' was obsolete in the Homeric language. There are passages, of course, in which a translation 'somewhere' will not offend; but they should be taken to show no more than the way in which the change of meaning was brought about. They do not seem to form a series illustrating various steps in that process, and the probability is that the change was considerably earlier than our records. The change may be illustrated by an English parallel. If I say 'Somewhere in the argument is a fallacy'; the 'somewhere' confesses my inability to expose the fallacy, while the fact that I nevertheless make the assertion proclaims my confident belief in its existence. In the Homeric uses<sup>8</sup> of *που* there is

<sup>7</sup> Formally speech, but practically narrative.

<sup>8</sup> Two passages are noteworthy because of repetitions of the particle.

In K 206-7 (cf. Leaf's note for punctuation) Nestor after asking whether no one will have the courage to go among the Trojans, says:

εἰ τινά που δηῶν ἔλοι ἐσχατῶντα,  
 ἦ τινά που καὶ φῆμιν ἐνὶ Τρώεσσι πύθοιτο . . . .

The first *που* is in the ascription of an obvious motive, 'in the hope, of course, of killing a foeman'; the second introduces an alternative that cannot be gainsaid, 'or surely he may hope to learn some φῆμεις among the Trojans'.

found just such a mingling of lack of knowledge with confident belief.

To return to the starting point: Bethe's translation<sup>9</sup> of β 164-6 'Odysseus wird nicht mehr lange fern sein den Seinen, er ist schon nahe und bereitet Tod und Verderben ihnen allen' is open to no criticism, for the confidence with which Halitherses speaks is stressed adequately in the accompanying explanation. His interpretation is not merely correct, it is the only one possible. Muelder's idea<sup>10</sup> that *που ἤδη* should have been translated 'vielleicht schon' is flatly contradicted by the usage of the poems, in which *που*, so far from casting the slightest doubt upon a statement, expresses always the confidence of the speaker in the truth of his utterance.

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In λ 457-61 Agamemnon says to Odysseus:

ἀλλ' ἄγε μοι τόδε εἰπὲ καὶ ἀτρεκέως κατάλεξον,  
εἰ *που* ἐτι ζώντος ἀκούετ' αἰδὼς ἑμοῖο  
ἢ *που* ἐν Ὀρχομενῷ, ἢ ἐν Πύλῳ ἡμαθόεντι,  
ἢ *που* παρ Μενελάῳ ἐνὶ Σπάρτῃ εὐρείῃ·  
οὐ γάρ *πω* τέθνηκεν ἐπὶ χθονὶ δῖος Ὀρέστης.

The first *που* (cf. ρ 510) indicates that the question might be foreseen. The second, if we trust text and language, means that Agamemnon had made such arrangements for his absence that Orestes must be in one or the other of these two cities. The third introduces a happy afterthought: by this time Menelaos is home and caring for his nephew. Our ignorance of the underlying legends stops further discussion. There is nothing in this to justify the attack upon line 461 made in the scholia. Aristarchus there read οὐ γάρ *που*, which would be perfectly normal. Our tradition, which runs back to an ambiguous ΠΟ, decides nothing for us.

<sup>9</sup> *Homer* 2.13 (Leipzig: 1922).

<sup>10</sup> *Bursian's Jahresbericht* 207.41 (1926). How much less bad his 'wohl gar schon' may be, is best left to native speakers of German. Wilamowitz, *Die Heimkehr des Odysseus* 102, paraphrases in substantial agreement with Bethe: 'und der Seher weiss auch, dass Odysseus irgendwo in der Nahe ist, und auf Rache sinnt'. This seems to me (cf. above) to miss the emotional coloring given by the particle.

## DOUBLETS IN THE LANGUAGE OF RABELAIS

ALBERT D. MENUT

SYRACUSE UNIVERSITY

[Collection and classification of the doublets used by Rabelais. Discussion of *doublet* as a technical term in linguistics.]

The first notable incursion into French of learned doublets which bear the mark of individual inventiveness appears in the writings of two fourteenth century humanists, Pierre Bersuire and Nicole Oresme. Fourteen doublets first employed by Bersuire in his translation of Livy (1362) have survived; seventeen found in Oresme's translations of Latin versions of Aristotle (1375) are still in current use. The rapid expansion of the French vocabulary in the Middle French period may be indicated by the fact that more than one hundred additional doublet forms (approximately one-fifth of the total number found in modern French) entered the language during this time.<sup>1</sup> Keeping pace with the gradual increase in the number of translations from the Latin, the development of the vulgar language in the direction of precision and elegance was accomplished almost entirely by accretions from the parent speech. With the Renaissance, new sources of enrichment were provided by the growth in knowledge of languages other than Latin, principally Greek and Italian. The effect of this linguistic conquest was immediately reflected in the first great literary achievement of the French Renaissance, *Gargantua* and *Pantagruel*.

In his study of the language of Rabelais, M. Sainéan states that 'Rabelais est le plus grand forgeron du verbe, véritable créateur de formes et de sens qui ont fait fortune.'<sup>2</sup> If the conclusions of this eminent authority required substantiation, this might be adduced from the relative proportion of doublets which Rabelais contributed to the permanent composition of his language. Investigation reveals no less than forty-four doublet forms of current usage recorded for the first time in his writings. This is a total unequalled, in all probability, by any other French writer.

<sup>1</sup> Cf. Menut, *Semantics of Doublets in Old and Middle French* 85 ff. (New York, 1922).

<sup>2</sup> L. Sainéan, *La Langue de Rabelais*, 2.2 (Paris, 1922-3).



In the earliest essay of his genius for satire, Rabelais directed the keen shafts of his wit against the Latinizing pedants of the schools in the person of the Limousin scholar, who did nothing but murder Latin while conceiving himself to be an orator in French.<sup>3</sup> To be taken seriously, this attack must be considered rather as opposition to a manner of Latinizing than as an absolute injunction against the practice; for in spite of it, the author continued the time-honored practice of borrowing freely from the Latin whenever necessity, real or imagined, demanded. It is Rabelais' distinction, however, that his judgment as to the need for borrowing has been so largely corroborated by succeeding generations of Frenchmen. Of the forty-four doublets first attested in his writings, Latin appears to have been the direct source of derivation of the following sixteen:<sup>4</sup>

*acut*, aigu < *acutum*  
*affecter*, affaiter, afféter < *affectare*  
*capse*, casse, caisse, chässe < *capsam*  
*contracte*, contrat < *contractum*  
*factice*,<sup>5</sup> fétiche < *facticium*  
*incarnat*, incarné < *incarnatum*  
*intègre*, entier < *integrum*  
*molaire*, meulière < *molarem*  
*quadrat*, carré, cadré, cadrat < *quadratum*  
*rote*, roue < *rotam*  
*rythmer*, rimer < *rhythmare*  
*séculaire*, séculier < *secularium*  
*sexe*, sixte, sieste < *sixtam*  
*subvenir*, souvenir < *subvenire*  
*taxer*, tâcher < *tax(-ic)are*  
*vagin*, gaine < *vaginam*

No record of Rabelais' intense enthusiasm for Greek happens to be preserved among these doublet forms. The contingent derived from Italian is, however, impressive and bears witness to the extensive influence which this language was beginning to exert upon the French

<sup>3</sup> *Oeuvres*, éd. Marty-Laveaux 1. 242. All references are to this edition.

<sup>4</sup> Where these words occur may be conveniently determined by referring to the *glossaire* in vols. 5 and 6 of Marty-Laveaux's edition. One exception is noted below. The orthography given here is modern.

<sup>5</sup> *Oeuvres* 1.47.

vocabulary, an influence which remained second only to Latin throughout the sixteenth century. Eleven doublets belong to this group:<sup>6</sup>

*argousin*<sup>7</sup> < aguzin < alwazir (Arab.) > vizir, alguazil  
*attaquer* < attaccare < stakka (Goth.) > attacher  
*banque* < banca < banka (Goth.) > banc, banco, banche  
*cadence* < cadenza < cadentiam > chance  
*cadène* < catena < catenam > chaîne  
*embuscade* < imboscata < boska (Greek) > embusquée  
*escale* < scala < scalam > échelle  
*esquif* < schifo < skip (Goth.) > équipe  
*gabie* < gabbia < caveam > cage  
*macaron* < maccherone < makaria (Greek) > macaroni  
*persique* < pèrsica < persicam > pers, pêche, presse

Spanish was not among the languages with which Rabelais was familiar.<sup>8</sup> He knew a few phrases and words only; but, as with German and English, Hebrew and Arabic, he used his small store of terms with such artistry as to conceal the real limitations of his knowledge from the general reader. Only two doublets of Spanish derivation are found for the first time in Rabelais, both of these being nautical terms:

*cavèce*<sup>9</sup> < cabeza < capitium > chevet  
*surgir* < surgir < surgere > sourdre

From the dialects of the south of France, so widely employed by Rabelais, the following four doublets were derived:

*bague* < бага < baccam > baie  
*brague* < braga < bracam > braie  
*braguette* < braguetta < bracam + ittam > brayette  
*gaze* < gaza < Gaza > Gaza

Three doublets whose immediate source was probably in undetermined dialects of the north or east, were originally derived from the German:

<sup>6</sup> Only three of these are found in the two books composed before the first sojourn in Italy (1534-5)—*banque*, *escale*, and *esquif*.

<sup>7</sup> *Algousan* in Rabelais, from old Venetian *alguzin* (modern *aguzzino*); cf. Sainéan 1.114-5.

<sup>8</sup> Cf. Sainéan 2.86-8.

<sup>9</sup> Sainéan 1.470, rejects this Spanish source and attributes *cavèce* to dialectical influence upon *chevèche*. Both Meyer-Lübke (1637) and the *Dictionnaire général* support the etymology given above.

*piffre*, *fifre* < *pifer*  
*étai*,<sup>10</sup> *estoc*, *stock* < *stoc*  
*morver*, *gourmer* < *worm*

Six doublets were formed on French roots by substituting for the regular *ée* ending of the feminine past participle the semi-learned suffix for the formation of verbal nouns, *ade* < *ata*.<sup>11</sup>

*acolade*, *accolée* < *ad* + *collata*  
*carbonnade*, *carbonnée* < *carbonata*  
*croisade*, *croisée* < *cruciata*  
*dorade*, *dorée* < *de* + *aureata*  
*sanglade*, *sanglée* < *cingulata*  
*taillade*, *taillée* < *taliata*

The doublet *mouvoir* represents a popular morphological transformation of *mouvoir* < *movere*.

Finally, it may be permissible to consider *cabale*, derived from the Hebrew *kaballah*, as a doublet of the older French term *gabelle* < Arabic *qabala*, with which the Hebrew verb is closely related. This is one of the few instances in French which correspond to those cases in English, cited as doublets by Skeat, of the type *head*, *chief* and *beef*, *cow*.

The several doublet forms introduced by Rabelais which have not survived are not for this reason devoid of a certain semantic interest. Rabelais employed *bénédict* for *béni*; *cabre* for *chèvre*; *chole* for *colère*; *lamine* for *lame*; *manducation* for *mangeaison*; *nate* for *né*; *nigre* for *noir*; *ocieux* for *oiseux*; *palat* for *palais*; *pumice* for *ponce*.<sup>12</sup> Occasionally there is an artistic end to be served by the use of these exotic terms; it is the Limousin scholar, for instance, who employs *nate*, and *cabre* occurs quite appropriately in a picturesque expression copied directly from the Provençal.<sup>13</sup> In general, however, these words lack semantic individuality; they express no new refinement of thought, but are

<sup>10</sup> *Étai* is due to confusion of *étaux*, plural of *étal*, with *étocs*, popular form of *estocs*.

<sup>11</sup> Cf. C. S. R. Collin, *Etude sur le développement de sens du suffixe -ata* (Lund, 1918).

<sup>12</sup> Other doublet forms which have not survived are: *chaussade*, *chaussée* < *calciata*; *condemnade*, *condamnée* < *condemnata*; *indague* < *indaco* (Ital.) *inde*, *indigo* < *indicum*.

<sup>13</sup> ' . . . lui promist un habit en condition qu'il le passast oultre l'eau à la cabre morte sus ses espaules.' *Oeuvres* 2.114.

merely orthographical variants introduced to simulate, not so much the ideational purport of the Latin etymon as its purely external form.<sup>14</sup> Rabelais' use of words of this order is decidedly conservative by comparison with that of the earlier humanists and contrasts in particular with the practice of his immediate predecessors, the Grands Rhétoriciens, who interlarded their uninspired verses with so many Latinisms that their collective name is still invoked to designate the acme of bad literary taste. Ordinarily, when a choice existed between a learned word and a popular equivalent, Rabelais preferred the latter. Thus, while his works contain examples of the majority of French doublet groups, fully three-fourths of these are represented by the popular form. In most cases where a learned form is recorded its popular congener is also found to have been used elsewhere. Thus of the sixteen learned doublets of Latin derivation noted above, thirteen appear also in popular form.

In view of the disparity that exists among linguists with regard to the use of the term 'doublet,' it is important to state how the word is construed in the present study. A doublet is here considered to be a word having the same etymon as another word (or words) in the same language, from which it is semantically differentiated. In strict accordance with this definition, all purely orthographical variants due to unsettled standards of spelling are excluded; as, for example, *coubler* and *couppler* for *coupler*; *allègre* for *allaigre*; *pariser* for *parier*. *Espade* has been disregarded because, in spite of its later use to mean 'a paddle for fulling cloth', in Rabelais it is merely an Italianism for *épée*, from which it is semantically undifferentiated. *Tibia* has not been regarded as a doublet of *tige* for the reason that the latter is historically the accusative *tibiam*, while *tibia* is a direct borrowing of the Latin nominative. In like manner, *incruster* is rejected as a doublet of *encroûter*, since the latter is not historically a development of Latin *incrustare*, but is a recomposed derivative constructed on the substantive base *croûte*. It is often difficult to determine cases of this kind. For instance: *cavalier* appears in Rabelais for the first time in the special sense of 'the dominating point of a fortification'.<sup>15</sup> This meaning he derived from Italian *cavaliere*, which corresponds etymologically to French *chevalier*. Both words may be derived phonetically from *\*caballarium*; but the evidence points rather to recomposition on the

<sup>14</sup> This applies equally, of course, to a large number of non-doublet terms.

<sup>15</sup> *Oeuvres* 2.7.

substantive bases, Italian *cavallo*, French *cheval*. Shall *cavalier* and *chevalier* be considered as doublets, or does the actual (or probable) circumstances of their casual relationship require that they be in some way specially designated to indicate the distinction between them and true doublet groups? There seems to be a lack of agreement among Romance linguists concerning these recomposed derivatives. The *Dictionnaire général* denies the appellation of 'doublet' to substantives of this type, but is not always consistent with regard to verbs.<sup>16</sup> On the other hand, most lists of doublets which have been compiled for the various Romance languages<sup>17</sup> contain numerous groups in which one or more of the terms is a reversionary form. These lists also include as doublet groups words of the type *on*, *homme* or *tige*, *tibia* (mentioned above), in which the two terms are derived from different inflectional forms of the same noun. If these are to be admitted as doublet groups, then why not also the singular and plural forms of nouns and adjectives and the different morphological aspects of the same verb root? Such words are certainly differentiated semantically, but it would hardly be maintained that they are derived from the same etymon. No one thinks of *chanter* as a doublet of *chantons*, yet their relationship is of the same order as that between *on* and *homme*.

Beyond the pale of the Romance languages, the term doublet connotes still other types of etymologically inter-related words. Skeat's list of English doublets, for instance, includes many groups such as *collocate*, *couch*; *grisly*, *gruesome* which conform to the following broad definition: 'Doublets are words which, though apparently differing in form, are nevertheless, from an etymological point of view, one and the same, or only differ in some unimportant suffix.' If this interpretation were to prevail in French, the number of doublets in that language would be multiplied several times over.

This is not the first time that these distinctions have been discussed.

<sup>16</sup> For example, *subvenir*, included above among doublets of Latin derivation on the authority of the *Dict. gén.*, is a true derivative of *subvenire*; but *souvenir* may be recomposed from *sous* + *venir*. If the latter is the case, is it a doublet of *subvenir*?

<sup>17</sup> Brachet, *Dict. des doublets de la langue française* (Paris, 1868-71); Coelho, 'Les doublets portugais,' *Romania* 2.281-90; Michaelis, *Studien zur romanischen Wortschöpfung* (Leipzig, 1876), contains list of Spanish doublets, reprint of Coelho and additions to Brachet; Canello, 'Gli allotropi italiani,' *Archivio glottologico italiano* 3.285-419. In general, the compilers of these lists seem to have been more interested in quantity than in accuracy.



In a brief and concise criticism of French doublet lists entitled *Die Scheideformen oder Doubletten im Französischen* (Vienna, 1890), Dr. F. Wawra pointed to twelve types included in these lists which differed in some more or less important respect from the true doublet groups. Wawra's strictures seem to have passed unheeded among Romance linguists and have in no wise affected the general unscientific use of the word. Perhaps the time is ripe to coin a few qualifying adjectives applicable to the several word-groups now indiscriminately termed 'doublets'. Only when this has been done will it be possible to speak accurately on this subject without recourse to lengthy explanations like the present.

*álpast, álka: skupla, hekla*

R-M. S. HEFFNER

HARVARD UNIVERSITY

[Explanation for anomalies in Einarsson's observation, that a consonant is usually longer as a first than as a second member of a group, is to be sought in the mechanical handling of his data rather than in any linguistic principle.]

Stefán Einarsson<sup>1</sup> in his examination of the length of consonant sounds has found that in a group of two consonants the same consonant is usually longer when it is the first than when it is the second member of the group: e.g. *k* in *hekla* is longer than in *álka* (23.4 : 22.2)<sup>2</sup>. He finds certain anomalies, however, for which he can offer no explanation (p. 77): e.g., *p* in *álpast* is slightly longer than in *skupla* (27.7 : 27.2), and *l* is longer in *skupla* and *hekla* than in *álpast* and *álka*.

His experiments were carried out in Helsingfors under the personal technical management of Professor Dr. Franz Äimä. The Straub Kymographion was run at a speed between 60 and 105 mm. per second, the latter speed being used only for recordings of pitch. His time curve was produced by a tuning fork oscillating at a frequency of 50 per second. The 'Oreille inscriptrice' may be assumed to have been as efficient as it is possible to make such instruments. He has not printed photographs of his graphs, but gives a few schematic drawings of them (p. 130).

If we assume a rotation speed of 75 mm. per sec. the difference of 0.005 seconds which Einarsson notes between the length of *p* in *álpast* and in *skupla* represents a distance of 0.375 mm. on his graph. Einarsson does not indicate how frequently this difference was noted. The difference in duration between the two sounds is exceedingly slight and the chance for error correspondingly great. Yet even if the two sounds were of the same length this would still be an anomalous situation, since the *p* in *skupla* might be expected to be somewhat longer than that in *álpast*. But the problem presented by the pair of words *skupla*:

<sup>1</sup> *Beiträge zur Phonetik der isländischen Sprache* 75-7, Oslo, 1927.

<sup>2</sup> The figures given are Einarsson's averages for the absolute length in terms of .01 second.

*álpast* is simple if the author's data are correct. For if we calculate the absolute duration of the two words, using the Heinitz<sup>3</sup> values given for *p* we find that *álpast* required 1.2686 seconds to record, whereas *skupla* required but 0.916 seconds, a ratio of 138.49 to 100. If we make the same calculations for these words based on the values given for *l* we find for *skupla* an absolute duration of 0.933 seconds, whereas *álpast* in this instance required but 0.816 seconds to record. Evidently, the greater absolute duration of *p* in this word as recorded may be attributable to the slower tempo with which it was spoken. Indeed, according to the Heinitz values we have no problem here, as the *p* in *skupla* is relatively longer than that in *álpast*, and this is to be expected from the results of other comparisons set forth by Einarsson. Or, to put the matter in another way: if the tempo of *álpast* had been the same as that of *skupla*, the absolute duration of *p* in that word should have been approximately 20.0, a value which compares very satisfactorily with the duration of *b* in the combination *lb* which Einarsson gives as 17.8 (Heinitz value, 1.15), or if the tempo of *álpast* had been the same in this graph as in the one from which the author has computed the values for *l* in this word, the absolute duration of the *p* should have been approximately 18.8. Either of these values is less than that given for *p* in *skupla* (27.2) and the alleged anomaly is therefore only an apparent one.

We find, however, that the values for *l* in these two words are also not in harmony with the general principle, since in *álpast* the *l* is shorter (8.3) than in *skupla* (11.2). In this case the Heinitz values show the same situation (0.61 : 0.72). I have pointed out that the absolute duration of *álpast* for this comparison was 0.816 sec. as against a duration of 1.2686 sec. for the *álpast* of the other comparison. In both cases *skupla* shows about the same absolute duration, viz., 0.933 vs. 0.916 sec. This is a difference which may easily enough represent nothing more than the mathematical inaccuracy caused by dropping several places in the decimal fractions involved, or a slight inaccuracy in the estimation of the very minute factors which enter into the Heinitz formula and the evaluation of the absolute duration. From the register (p. 132 and p. 137) one infers that Einarsson used but one graph for *skupla*, whereas he may have used two for *álpast*. In the latter case, however, one graph presumably shows [aulpast<sup>h</sup>] whereas the other shows [aulp<sup>h</sup>ast<sup>h</sup>]. It is clear that the values he gives for *p* in this word cannot have been drawn correctly from the same graph from which the values given for *l*

<sup>3</sup> Cf. P. Calzia: *Das Hamburger experimentalphon. Praktikum* 1. 60; Heinitz, *Voz* 1921. 153.

have been taken. Assuming that he used the graph of [aulp<sup>h</sup>ast<sup>h</sup>] for the values of *p*, one may reasonably infer that he has used that of [aulpast<sup>h</sup>] for those of *l*, and if this is the case we have solved another difficulty. For he has demonstrated (p. 62) that the voiceless liquids are much shorter in intervocalic consonant groups than are the voiced liquids. His values are for *l* 13.9 and for *l* 16.6. On page 67 he gives as the value of voiceless *l* before *p* the figure 11.3, and this he has in all likelihood drawn from his graph of [aulpast<sup>h</sup>]. This value of course cannot be reconciled with that which he gives for *l* in *álpast* on page 76. Whether these values be correct or not, the anomaly which he alleges with respect to the relative length of *l* in the two words *álpast* : *skupla* loses its significance if we are correct in our inference as to the graphs of *álpast* used, for in that case he is comparing the duration of voiceless with that of voiced *l* and under the circumstances this is not a pertinent comparison.

When one observes (p. 132) that for *álka* Einarsson has used two graphs, one representing [aulka] and the other [aulk<sup>h</sup>a], one is inclined to believe that the anomaly he alleges for the relative length of *l* in this word and in *hekla* may be explained in the same way in which the difficulty with *álpast* has been explained. This case is not so clear, however. The actual duration of the *álka* cited for the values of *k* is 0.6874 sec., that of the *álka* cited for *l* is 0.6567 sec. The disparity is then but 0.0307 sec. as compared with a difference of 0.4526 sec. between the two forms of *álpast*. Again as in the case of *skupla*, apparently but one graph has been used for *hekla* and the absolute duration derivable from the values given for *k* (75.97) differs from that derivable from the values given for *l* (76.62) by only 0.0065 sec., a disparity due undoubtedly to the mathematical inaccuracies involved in the computations. But the disparity found in the two computations for *álka* is 4.7 times greater than that found for *hekla*, and this may indicate an error of considerable magnitude in the values given for *álka*, either in the computations themselves or in the use of two different graphs, one of which showed a voiceless rather than a voiced *l*. There is another possibility, however, viz., that the graph for [aulka] has been used in both comparisons. Assuming the tempo of the recordings to have been approximately the same, the actual duration of the word *álka* derived from the values offered (say 0.6567 sec.) is more nearly properly proportional to the duration of the *álpast* which is presumably [aulpast<sup>h</sup>] (say 0.816 sec.) than to that of the other *álpast* (say 1.2686). This statement is based on the assumption that the respective lengths of

two words so nearly alike as *álka* : *álpast* should be in something like the ratio of four to five or of four to six, assuming the tempo of utterance to be the same in each case. There is then reasonable ground for the inference that the similarity of the anomalies alleged for these two groups of words is paralleled by a similarity of cause and that this cause is rather mechanical than linguistic in its nature.

Once more let us recall the purely mechanical aspects of this problem. The absolute duration of *l* in *álka* is given as 0.11 sec. That of the *l* in *hekla* is given as 0.118 sec. Assuming a rotation speed of 75 mm. per sec. (which is probably greater than that actually used), this time difference of 0.008 sec. would show on the graph as a line 0.6 mm. in length. The time curve read in cycles of 0.02 sec. and the divisions of time below 0.01 sec. are estimated (p. 9). This means that at a speed of 75 mm. per sec. a time interval of 0.008 sec. involves the estimation of a distance of the graph of 0.225 mm. Add to this the circumstance that these distances have to be measured with the arc of the writing lever of the 'oreille inscriptrice' which must be placed each time exactly at right angles to the base line, and one has some conception of the difficulties involved in such minute observations. Add to this the inevitable capriciousness of the recording mechanisms and one has some idea of the possible errors which may find their way into such delicate measurements.

Such experiments if repeated a considerable number of times with results which are of the same nature, if not of the same magnitude, may claim the credence of science. Einarsson does not display data which reveal the repetition of these particular recordings. This is most astonishing in these instances in which an anomalous tendency is alleged. There can be no doubt that the recordings were taken with scrupulous care under the direction of Professor Äimä. Nor may we doubt that Einarsson has taken every precaution to prevent errors in his tabulations. Errors such as I have suggested as probably present in these data are of the type which find their way almost inevitably into the processes of the experimenter. They are errors which he strives to the utmost to prevent, but which can only be entirely eliminated by the patient and prolonged repetition of experiments which seem to yield anomalous results. In the two cases discussed above it seems most probable that the explanation for the unusual conditions set forth by Einarsson is to be found rather in the mechanical handling of his data than in any linguistic principle.



## GRAMMATICAL PROCESSES: INCREMENTAL VS. AUTONOMIC

JAIME DE ANGULO

[Suggestion of a new classification and terminology]

The following remarks are offered as a commentary on Chapter IV of Sapir's book *Language*. That chapter is devoted to an analysis of the grammatical processes which language may use as tools to express grammatical concepts. Sapir (p. 64) groups the processes into 'six main types: word order; composition; affixation; internal modification of the radical or grammatical element, whether this affects a vowel or a consonant; reduplication; and accentual differences, whether dynamic (stress) or tonal (pitch).'

It seems to me that these six main types fall into two contrasting groups: on the one hand, word-order, compounding, affixation; on the other hand, inner modification, reduplication, accentual changes. The technique is essentially different in the two groups. In the first group, something is added from without to the linguistic elements. In the second group, the change is wrought within the linguistic elements themselves. Thus, two terms suggest themselves to designate these two groups of grammatical processes: incremental and autonomic.

In regard to the processes themselves, I would like to suggest the use of the term 'prosody' to include all those changes which are often lumped together as accentual differences. They involve three independent factors: pitch (or tone), duration (or length, quantity), amplitude (or volume, stress, loudness, etc.).

The term 'sound-variation' seems an appropriate one to include all the inner modifications that may take place, either in the radical, or in the grammatical increment, or in both, whether the modification affect a vowel, or a consonant, or both. The well known 'ablaut' of Indo-European would be a particular case of sound-variation.

Finally, I would like to combine 'metathesis' with 'reduplication,' and include both processes under the term 'syllabic manipulation.'

The following table will serve to bring the foregoing points into relief.

## GRAMMATICAL PROCESSES:

<i>Incremental</i>	<i>Autonomic</i>
1. Word-order.	
2. Compounding.	1. Prosody: { a) pitch b) duration c) amplitude
3. Affixation: { a) prefixation b) infixation c) suffixation	2. Sound-variation (inner modification).
	3. Syllabic manipulation: a) reduplication. b) metathesis.

## BOOK REVIEWS

**Einführung in die Semitischen Sprachen; Sprachproben und Gram-matische Skizzen.** Pp. xv + 192. By GOTTHELF BERGSTRÄSSER. München: Max Hueber Verlag, 1928.

This book contains a grammatical outline of parent Semitic followed by grammatical outlines and texts of specimen languages of all the important divisions of the Semitic family of speech. Wherever possible both ancient and modern dialects belonging to the various divisions are treated. All languages are excluded from the discussion which are exclusively or mainly preserved in unvocalized texts.

The grammatical sketches and accompanying texts are preceded by a table of contents, a brief preface, a table of signs used in transliterating the various languages, and a brief preliminary statement concerning the languages treated. The first chapter (pp. 3-19) gives an outline of the reconstructed parent Semitic, and is naturally unaccompanied by any text. Chapter II (pp. 20-36) deals with Assyro-Babylonian (Akka-dian) and gives specimens of both Babylonian and Assyrian. Chapter III (pp. 36-59) pictures the Hebrew language, which is exemplified in three forms, Biblical, Mishnic, and Modern Hebrew. Chapter IV (pp. 59-96) is devoted to Aramaic, the ancient Aramaic dialects being represented by Biblical Aramaic, Syriac, and Mandaic, the modern idioms by the dialects of Ma'ulula and Urmia, brief texts being given in the case of every dialect. Chapter V (pp. 96-134) deals with South Arabic and Ethiopic, treating the Ancient Ethiopic or Ge'ez and the modern Amharic, Tigre, and Mehri, each one exemplified by brief texts. Chapter VI (pp. 134-180) treats North Arabic or Arabic proper, giving a grammatical outline and specimens both of ancient or classical Arabic, and of some of the modern dialects, the Bedouin of Central Arabia, Egyptian, Moroccan, and Maltese. The work concludes with an appendix (pp. 181-192) containing a list of words common to the five chief branches of the Semitic family, drawn usually from Assyrian, Ethiopic, Syriac, Hebrew, and Arabic.

The book represents an attempt to present the salient characteristics of the Semitic family of speech, and to do for the Semitic languages what Friedrich Müller's *Grundriss der Sprachwissenschaft* (Wien, 1876-84)

tries to do for all the languages of the world. It sets forth the elements of a number of the most important Semitic languages, and furnishes the means for one acquainted with one or more of these languages to extend and intensify his knowledge of this speech family by learning the rudiments of other related idioms. The texts furnish, as the author says, a Semitic counterpart to Schleicher's *Indogermanische Chrestomathie* (Weimar, 1869), and offer excellent material for illustrating the grammatical sketches. The list of common Semitic words is a great convenience.

The book, moreover, presents the Semitic languages in a form (everything is transliterated, no Semitic characters are employed) which makes it possible for those with no knowledge of the Semitic alphabets to get some idea of the general form and chief peculiarities of this important family of languages. A non-Semitist, however, would be faced with considerable difficulties in any attempt to make extensive use of the work. Many of the examples in Chapter I are not intelligible to one who knows no Semitic, without reference to the other chapters of the book. It would perhaps have been better, from the point of view of the non-Semitist, to have treated Ursemitisch at the end of the book after the discussion of the individual languages had made possible the understanding of the examples here used. In general the grammatical sketches would be clearer to a non-Semitist if the examples were more frequent and the arrangement of forms in paradigms was employed. A better picture of the various idioms would have been presented also if more attention had been devoted to syntactical phenomena, and a discussion of the various ways of expressing the so-called indefinite pronominal ideas and the idea 'to be' in the different languages would have been especially useful. The texts attached to the grammatical sketches, though accompanied by translations, are not furnished with glossaries, and would be difficult for a non-Semitist to use to advantage without reference to the Semitic dictionaries, and all of these except the Assyrian would ordinarily be closed to him by his ignorance of the Semitic scripts.

An occasional error occurs; for example, the inter-dental or post-dental or infra-dental spirants (þ, ð, and emphatic þ) are consistently spoken of as dental spirants, which term is ordinarily employed to denote *s* and *z* (cf. pp. 20, 37, 61). On p. 40 the statement 'Für die Pluralendung -ū findet sich jünger auch -ūn' in a paragraph dealing almost exclusively with perfect endings, is ambiguous. The author can hardly be referring to the excessively rare perfect forms with this

*ūn* ending (cf. Gesenius, *Hebräische Grammatik*<sup>26</sup> 44, 1): and the imperfect ending *ūn* is certainly older than *ū*.

The author deserves credit for producing an example of a much needed type of linguistic work, a descriptive comparative grammar, a comparative grammar whose chief interest lies in comparing the form and constructions which are employed to express the various ideas and categories of human speech without special regard to their historical connection, that is, a comparative grammar stressing semasiology rather than etymology. The fact that it does not present a more complete picture of the languages treated is largely the fault of the usual conception of what a grammar should be. We are satisfied with descriptive grammars of individual languages which give only a partial picture of the language, emphasizing particularly phonology and morphology, and our comparative grammars must necessarily be of the same character. It is rather curious that in the present advanced state of linguistic studies there is not a single grammar that actually teaches the language it describes by presenting a complete statement of all its essential phenomena. It would seem fairly obvious that the production of such complete grammars both for individual languages and for whole linguistic families is one of the pressing needs of present day linguistic science.

FRANK R. BLAKE

**Syntax der litauischen Postpositionen und Präpositionen.** Pp. xi and 292. By ERNST FRAENKEL. Heidelberg: Carl Winter, 1929.

Last year the distinguished professor in Kiel published his *Syntax der litauischen Kasus* (Kovno, 1928). His second significant work on Lithuanian syntax, the *Syntax der litauischen Postpositionen und Präpositionen*, which has just appeared, will be greeted with pleasure by all Indo-Europeanists and particularly by students of Lithuanian, that most ancient in form of living Indo-European dialects. The latter are only too conscious of the lack of similar studies in this division of Lithuanian grammar. It is not too much to say that Fraenkel's book, so methodically excellent and so complete in its presentation of facts, will doubtless inspire others, in this age of awakening interest in syntactical questions, to turn their attention for awhile in the same direction and to add their own contributions toward clearing up the problems of Baltic semasiology. The way will thus be made easier for the composition of a modern scientific Lithuanian grammar, the absence of which has been an immense handicap to linguistic scholars.



The existence of such a definitive grammar of the Lettish language—I refer, of course, to Endzelin's *Lettische Grammatik* (Heidelberg, 1923)—gives strong support to Fraenkel's method of continually comparing the Lithuanian with its sister language. For the present, until a suitable Lithuanian grammar makes its appearance, it is absolutely necessary to have Endzelin's work always at hand, not only because it contains practically all that one need know about Lettish but because it is a treasure-house of valuable remarks on usage in Lithuanian. The Slavic tongues are likewise brought by Fraenkel into comparison with the Lithuanian. Of these the Polish, on account of the actual influence it exercises over the eastern dialects of Lithuania and of the Polonisms which are apparent in the religious works of older authors, particularly in the *Postille* of Daukša, is the most important. In citing examples from Daukša and frequently in other quotations, Fraenkel follows the extremely commendable procedure of placing the Polish original beside the Lithuanian, in order to show its effect upon the translation. But, as the author himself takes occasion to mention, it is by no means always possible to tell whether a construction is due to such literary imitation of a foreign language or whether it is a matter of parallel independent development. The effort, however, is distinctly worthwhile.

The facts are presented in an orderly, systematic manner and in a clear-cut, forceful style not possessed by every German writer. The postpositions *-na* and *-pi* are treated first; then come the more important prepositions, such as *priē* 'near', 'at', 'by', *aņt* 'upon', *iš* 'out', 'out from'; and finally, in an appendix, mention is made of a number of 'unreal' preposition ssuch as *gretā* 'beside', *abīpus*, *abypusīā* 'on both sides of', *viētoje* 'instead of'. Each article, with the exception of those in the appendix, begins with an account of the various forms of the postposition or preposition under discussion and of the case or cases which it governs. Here it is easy to see how intimately acquainted the author is with all the many Lithuanian dialects. Furthermore, in reading these introductory pages to each single article, one is impressed with the advantage which the author had in being able to live in Lithuania while completing his studies. The opportunity thus given to him of hearing as well as of reading puts the stamp of authority upon his work.

The semantic relations, the actual syntactical usages, of each postposition or preposition succeed the explanation of its form. Of the greatest interest are the dialectal peculiarities which are brought to

light in different places throughout the book. The preposition *uz* (= Lett. *uz*), for example, has been substituted, in the greater part of the country, for the older *ažū* (= Lett. *diz*). But in the eastern dialects the latter preposition is still in use. In addition, the conservatism of these dialects is shown by their retention to a great degree of the postpositions *-na* and *-pi*, which, except in certain adverbial phrases and common locutions, have virtually disappeared from the literary language and from the Samogitian, that dialect which borders on the territory of Latvia.

The phrases chosen as examples were selected from every period of the language, from Mosvid, Szyrvid, and Bretkun, through Duonaleitis to the most modern writers such as Krėvė and Žemaitė. Nor, naturally enough, were the folk-songs, together with the usual grammars and collections of texts, left out of consideration. Believing, however, as he says in the preface, 'dass das Bessere der Feind des Guten ist', Fraenkel has avoided the error of filling up his volume with too many examples. In order to make the work readable for many a linguist who does not possess more than a slight acquaintance with Lithuanian, Lettish, and Polish, but who might find suitable comparative material therein, the reviewer would wish that more of the examples were translated into German. A rather inconsiderable number are translated but it is quite impossible to discover the basis upon which the choice is made. The consequent necessary increase in price, which is great enough as it is (22.50 marks), may, to be sure, be the reason for this deficiency. But nevertheless the book represents a very valuable addition to our store of knowledge in this highly important field.

FREDERIC T. WOOD

**Le Langage Populaire.** Grammaire, syntaxe et dictionnaire du français tel qu'on le parle dans le peuple de Paris, avec tous les termes d'argot usuel. Second edition. Pp. 256. By HENRI BAUCHE. Ouvrage couronné par l'Académie française. Paris: Payot, 1928.

Monsieur Bauche has devoted himself for many years to the observation of the colloquial language of the Parisian, and here gives us the result of this careful study. Himself at heart a partisan of the literary language, he realizes that much of this which is now the ordinary, non-literary speech is destined to be part and parcel of the literary language of the future; for a language which does not accept the most useful of the new popular uses is bound to decline, and ultimately to be

replaced by the fresher and more vigorous colloquial idiom. This is sound historical linguistics.

He carefully distinguishes between *le langage populaire* and *l'argot*; the former consists of generally accepted usages of the colloquial speech, but an *argot* is the special speech of a group, intended in some degree at least to give a privacy to the conversation through its unintelligibility to outsiders. Some words of the *argots* become accepted in the *langage populaire*; these are included in his collections. But those words and meanings which remain in use in restricted circles only, are not part of his field.

The work, after the introduction, falls into two parts: *Grammaire et Syntaxe*, and *Dictionnaire du Langage populaire parisien*. The comprehensive nature of the first part is seen by its subdivisions: *Prononciation, Formation des mots, Genres, Nombres, Article, Substantif, Adjectif, Pronom, Verbe, Adverbe, Préposition, Conjonction, Interjection, Jurons, Mots grossiers, Mots nobles, Explétifs, La phrase populaire; Locutions diverses, clichés; Langages spéciaux; Heure, jour, semaine, mois, année; Orthographe; Formules de politesse; Parenté; Transformation de la langue.*

This second edition contains a limited number of changes from the first (published 1920), on the nature of which Monsieur Bauche comments in his preface, with some reply to criticisms. My own chief criticism would be that the linguistic interpretation of the changes is inadequate; the author disclaims (19) any desire to deal with etymology, though incidentally he does quite as much with such matters (60-83) as he does with the linguistic phenomena. The single excellent example of linguistic interpretation is that of the two pronunciations of *chevaux*, and of other words with an unaccented *e* in an open first syllable: the *e* is lost after words ending in a vowel sound and kept after words ending in a consonant sound, as in *trois chevaux* and *quatre chevaux*, pronounced *troi chfau* and *quatt cheveu* (51-3, with other details). Elsewhere, examples are given in one place without interpretation, and repeated again with it, but without cross-references in either place: thus on page 50 we find that '*qu* se change souvent en *t*', as in *cintième* for *cinquième* and in *kioste* for *kiosque*, and on page 61 *kioste* is given as an example of dissimilation. The *t* of *centième* is ascribed (60) to 'permutation de certaines consonnes', but is obviously due to the influence of *septième* and *huitième*, or of *vingtième*, *centième*. Under 'Quelques Prononciations Populaires' we find (54-5) popular *précepteur* for *percepteur*, and *percepteur* for *précepteur*; these are not merely 'popular

pronunciations', but are confusions of the two words, which he calls 'confusion par analogie' (60). Why by analogy? *Mécredi* for *mercredi* is an example of dissimilative loss, but is termed 'principe du moindre effort, affaiblissement' (60). And so on.

We find many of the phenomena of Late Latin and of the development of Latin into the Romance languages, repeated in the sounds and words of the langage populaire. Thus *castrole* for *casserole* (54) shows a change identical with that of Late Latin *essere* to *estre*, on its way to French *être*. *Cocodrille* for *crocodile* (54) reminds of manuscript writings *cocodrillus* (Sommer, *Handb. d. Lat. Laut- u. Formenlehre*<sup>2</sup> 214). *Sornambule* for *somnambule* (55) reminds of Latin *carmen* for \**canmen* (Sommer 213), if this be the true etymology of the Latin word.

We find also that many of the peculiar idioms are paralleled in other languages. The peculiarity of the verb in *c'est moi qui a* (102) is found in careless English, and that of the pronoun in *c'est moi que je pars* in German. The consonantal development of the participle *eu* to *évu* (dissyllabic form induced by the dissyllabic *ayant*?) and to *vu* after a vowel (128), suggests the parasitic [w] in the pronunciation of English *one*, cf. also Lithuanian *vienàs* 'one'. Anglicisms, quite rightly, draw Monsieur Bauche's condemnation (166 ftn.), with constant misuse of the apostrophe, as in *Pari's Bar* and misunderstood words, as in *Five o'clock à toute heure* (but I have seen *Mardi Gras, July 10-14* in a New Jersey village) and *Sélect Lavatory* (which means *salon de coiffure*). But he approves as lending clearness the locution in *donne le journal, pour moi le lire* 'for me to read it', which comes from English influence on the northern coast.

It is tempting to go on with such discussion, but we must turn to the second part of the volume, the Dictionnaire. Interesting words are *afnaf*, *afeunaf*, glossed 'par moitié, moitié de chaque'; *bistECK*, for the correct 'bifteck, beefsteack' (!); *bizness*, = 'travail, commerce'; *bu*, in the meaning 'ivre'; *frio*, in *il fait frio*, from the Spanish; *aller à schloff*, = 'aller dormir', from German; and many others. But among the words and meanings here listed I find others which are recorded in my *Petit Larousse* of 1925, without indication of their non-literary quality.

Any scholar who wishes to know how the people really speak in Paris needs this volume which Monsieur Bauche has compiled with loving care through the years, without, it is true, other than descriptive method, for the historical interpretation has barely been touched by him.

ROLAND G. KENT



**Dictionnaire des Gallicismes les plus usités.** Pp. ix + 388. By M<sup>lle</sup> ELISABETH PRADEZ. Paris: Payot, 1927.

This volume contains about 2500 French idioms, with German and English translations, an explanation in French, and an example of the use; the five items in vertical columns extend across the two facing pages. The plan is good, and its execution is commended in a trilingual preface, the authors of which are Henri Sensine of Lausanne, Dr. G. Bodart of Erlangen, and Lionel G. Robinson of London. The purpose of the volume is to aid speakers of German and of English to a real mastery of French, and conversely to help speakers of French toward a better knowledge of German and English.

The translations of the French idioms ought then to be precise and idiomatic. I have examined several hundred of them, and am not satisfied that they are all well chosen. I list some examples from the first pages of the book. Page 4: *à brebis tondu* *Dieu mesure le vent* is translated 'God spares the weak', but our familiar phrase is 'God tempers the wind to the shorn lamb'. *Abstraction faite de* 'that excepted': a wrong phrasing, which should be 'with exception of'. *A ce qu'il paraît* 'so it seems' should be 'as it seems'; *à ce qu'on dit* 'so they say' should be 'as they say'. 'Sufficient for the day is the evil thereof' is garbled for 'sufficient unto'. Page 6: *à contre-sens* 'the wrong side, wrong' should be 'the wrong side out, wrong'. Page 8: *à fonds perdu* 'as money sunk' should be 'in a life annuity'. *A force de* 'the more one' should be 'from much'. *A huis clos* 'with closed doors' should be 'behind closed doors'.

I select now a few scattered items. Page 14: *aller de pair (avec)* 'to be the equal', usually in a pejorative sense, as in the example *elles vont de pair*; the English would rather be 'they are two of a kind'. Page 16: *âme qui vive* 'no living soul' is always used in negative expressions: yes, but the English would be 'any living soul', the negative being separately expressed, as in French also. Page 18: *à pile ou face* 'heads or tails', should be either 'by heads or tails', or 'by the toss of a coin'. *Après coup* 'too late' should be rather 'ex post facto' or 'after the event'. Page 20: *arriver comme mars en carême* 'to appear at the expected time' should be 'to appear without fail'.

Despite these strictures, any student of French with a good previous command can greatly benefit by this collection, for he can make his own adjustments in the English equivalents even as I have done—and in the German also, where I find some infelicities, but hesitate to list



them. Idiom is such a tricky field that one should beware of venturing outside his own native tongue; I may have colored even some of my critique by the particular kind of English with which I am familiar, to the exclusion of idioms prevalent in other parts of the English-speaking world.

The book has however one serious inconvenience, that all idioms are listed alphabetically by the first word in its dictionary form, and not by the chief word. Thus *aller à l'aventure* is on page 16, *ne pas aller par quatre chemins* page 236, *s'en aller* page 236, *y aller de tout coeur* page 384. But it is a treasure-house for those who will make the hunt, and offers rich materials for those who are interested in semantic development.

ROLAND G. KENT.

**Les Noms de Personnes.** Origine et évolution. Deuxième édition. Pp. vii + 211. By ALBERT DAUZAT. Paris: Librairie Delagrave, 1925.

The author discusses the interest inherent in the names of persons, the distinction of their study from that of names of places, their linguistic interest, the method of pursuing their study; gives a summary sketch of personal names among the Hebrews, the Greeks, the Romans, the Gauls, the ancient Germans, the French, the Italians, the Spaniards, the Germans, the English, the Arabs; then takes up in detail the linguistic and other phenomena of proper names, especially as illustrated by French names, in historical perspective.

The volume is both delightful and instructive, although a classicist finds the account of Greek and Roman names somewhat too brief for accuracy. Interest is maintained by inclusion of illustrative anecdotes, as for example (p. 96) that the distinguished French mathematician Henri Poincaré was worried at bearing, as he thought, a mathematically impossible name *Point-carré*, whereas it was in reality *Poincarré*, a form which actually occurs in older documents, as well as a Latinized genitive *Pugni quadrati*. An odd error in deriving the French name Denis from 'Dionysos le Bacchus grec', in the midst of discussion of names derived from saints' names (p. 72 n.); surely St. Dionysius is a well-known saint!

But M. Dauzat understands the principles of linguistics which are involved in the history of names, and it is pleasure to recommend his little volume to scholars in the linguistic field.

ROLAND G. KENT

**Digressões Lexicológicas.** Pp. 256. By JOSÉ JOAQUIM NUNES. Lisbon: Livraria Clássica Editora de A. M. Teixeira e Ca. (Filhos), 1928.

All but two of the twenty-four chapters of this volume first appeared as separate articles in a newspaper of Rio de Janeiro. They are thus a work of linguistic popularization and Dr. Nunes has presented his many and varied subjects in the form of pleasant familiar essays.

The book is divided into two parts: *Language* and *Grammar*. The first part contains chapters on the following subjects: Gallicisms in Portuguese, the history of the Portuguese pronouns of address, semantics, the rôle of metaphor in everyday speech, doublets, popular etymology, and various other etymological problems. The second part deals chiefly with the morphological history of the various parts of speech. A chapter on the formation of the plural of nouns ending in *l* and of nouns ending in a nasal contains an interesting and original study of intervocalic *n*. There follow chapters on the rôle of analogy in the development of adjectives and verbs, and a chapter on the development of the definite and indefinite articles.

Probably the most important chapter in the book is the one on the personal infinitive. Dr. Nunes rejects his own theory and that of Prof. Leite de Vasconcellos, that the personal endings were added to the infinitive through analogy with the finite tenses of the verb, particularly the future subjunctive, and accepts the theory of Dr. José Maria Rodrigues, that this peculiar tense is derived from the Latin imperfect subjunctive, which disappeared in general from the Romance languages, but which was, so far as form is concerned, an inflected infinitive. This theory is interesting, but it would seem that the theory of Carolina Michaëlis de Vasconcellos, 'Der portugiesische Infinitiv', *Romanische Forschungen* 7.79, which is, in fact, a variation of Dr. Nunes own rejected theory (*Gramática Histórica Portuguesa* 309), must also be given due consideration. In Old Spanish there is found a pronoun *mos* which probably results from a confusion of the verb ending *-mos* with *nos*. A form *mosotros* is also found. Now Carolina Michaëlis de Vasconcellos believes that what was first a pronoun assumed the combined rôle of suffix and pronoun with the infinitive and later the rôle of suffix alone, and that from this beginning the infinitive took on the other personal endings.

Students of Portuguese will do well to read these delightful essays on the Portuguese language.

EDWIN B. WILLIAMS

## NOTES AND PERSONALIA

AT THE CLOSE OF THE SKETCH OF MAURICE BLOOMFIELD'S life mention was made (LANGUAGE 4. 217) of a work that he had left unpublished. On account of the importance of the enterprise and the wide range of its linguistic interest it seems desirable to give a fuller account of it. Professor Franklin Edgerton, whom Bloomfield had chosen to cooperate with him, sends at the request of the editor the following description:

### VEDIC VARIANTS

By the late MAURICE BLOOMFIELD

AND

FRANKLIN EDGERTON

#### I. BASIS OF THE WORK

This work is based on Bloomfield's *Vedic Concordance* (Cambridge, Mass., 1906; Harvard Oriental Series, Vol. 10).

The Concordance is 'an alphabetic index to every line of every stanza of the published Vedic literature and to the liturgical formulas thereof, that is an index to the Vedic mantras, together with an account of their variations in the different Vedic books' (title-page). It contains some 90,000 entries, each consisting of a 'pāda' or half-line (the smallest metrical unit, commonly 8-12 syllables) of a metrical text, or of a prose formula used in a prose liturgical text. Some fifty important Vedic texts, and a considerable number of minor ones, are here completely indexed in so far as they contain verses or liturgical formulas used in any part of the extensive Vedic ritual.

Of the ca. 90,000 entries, not far from one-third occur more than once, sometimes in the same text, more often in different ones. Some are repeated many times. Counting these repetitions, there are probably over 180,000 individual quotations in the Concordance.

Of the repeated text-units recorded, perhaps 30,000 in all, it is estimated that about one-third show variants. It is with the variant readings of these repeated mantras, numbering roughly 10,000, that the present work is concerned.

## II. ITS INTEREST AND IMPORTANCE

As to extent, the variations range all the way from change of a single letter in a single word, to radical rearrangements of the whole text. They may or may not be accompanied by shift of meaning, great or slight. They may be assumed to have been made sometimes consciously and sometimes unconsciously. As to character, they are of the most varied sort. They concern phonetics, the interrelation of different sounds and sound-changes; various departments of morphology, such as formation of stems of nouns, pronouns, and verbs, their inflection, and suffixation; syntax; order of words in the sentence; synonyms; meter; etc. There is hardly an important paragraph in Vedic grammar, or a department of the textual criticism and exegesis of the Veda, on which they fail to throw light. The future study of the Veda will rest heavily on them.

But that is by no means all. For general linguistics the Variants will have extraordinary interest and value. The literature of the world happens to contain no analogous body of material which can compare with them in size and scope. The tradition of the Veda was mainly, and at first exclusively, oral; and 'what was originally one and the same stanza or formula was handed down in the texts of the various schools in more or less varying forms. The variants are often of the same general character as those which appear in the various forms of ballads, or of church hymns: there are simple differences in the order of words; differences due to the substitution of a more familiar, handy, or modern word or grammatical form for an archaic, inconvenient, or obsolescent one of equivalent meaning or function [or the converse of this, due to a conscious archaizing tendency]. To this must be added the very important point that there are also many cases in which a given mantra passage, composed under certain definite circumstances, was later on adapted and changed to serve a new purpose.—Furthermore, Vedic literary production is often in a high degree imitative and mechanical [a trait which it shares with most religious literature]. The poets or priests, more or less consciously, fell into habits of expression such that entire lines of different stanzas or hymns, and considerable sequences of words of different prose passages, show much similarity.' So, but for the bracketed phrases, Bloomfield wrote in the Preface to the Concordance, before he had systematically studied the Variants. Later he would probably have laid greater stress on the presumably unconscious element in the variations, which was perhaps at least as weighty as the conscious, and is certainly at least as interesting linguistically. The

writer, at any rate, suspects that we learn even more about the speech-habits of the Vedic priests from the changes which they introduced without realizing it, than from their deliberate alterations. But whether conscious or unconscious—and at this distance it is obviously impossible to separate the two classes with confidence—any linguistic scholar will see at a glance how many interesting observations can be drawn from these thousands of variations, touching on every field of grammar and of linguistic psychology.

### III. PRESENT STATUS

From the pages of the Concordance, Bloomfield collected and classified the Variants, arranging them topically under ten or a dozen main heads, with numerous subdivisions in each; of course very many passages had to be included several times over under different headings. This preliminary spade-work was completed when he proposed to his pupil, the present writer, a collaborative enterprise, which offer was gladly accepted. This was about 1913. In the next half-dozen years I worked up a preliminary draft of four of the major sections of the work (Nos. 2–5 below), and Bloomfield completed the most of No. 1. There the matter rested, for lack of prospect of publication; altho many Vedic scholars the world over have been impatiently waiting for it.

On Bloomfield's death in 1928, I took charge of the entire body of materials; and in the past months I have been revising and completing the section on the Verb, which he had nearly finished. It seems best to publish it first, since most of it can be issued substantially as it came from the pen of one of the greatest Vedists and linguistic scholars of the world. It will be ready for the printer by June, 1929. Each of the following four sections could be prepared for the press in a few months. The remaining sections exist only in the form of rough lists taken from the Concordance by Bloomfield.

### IV. CONSPECTUS OF SECTIONS OF THE WORK

1. *The Verb*. Estimated 350 printed pages. Ready in June 1929. Principal divisions: Voice, Mood, Tense, Person, Number, Secondary Conjugations, Interchange between finite verbs and verbal nouns or adjectives, Augment and Reduplication, Stem-gradation. All except chapters on Person and Number were left in virtually final form by Bloomfield; these two chapters have been written by Edgerton. The results are illustrated by the fascinating article by Bloomfield 'On instability in the use



of moods in earliest Sanskrit,' *American Journal of Philology* 33.1 ff., which was a preliminary sketch for the chapter on Mood, presenting however only a small selection from its materials.

2. *Phonetics*, including *Euphonic Combination* ('sandhi'). Est. ca. 600 printed pages. The longest and possibly the most interesting section. Interchanges between different individual sounds, and their diverse treatment in combination with other sounds; simplification of consonant groups; rhythmic and metrical influences on sounds; haplology and dittology; assimilation, metathesis, and other 'irregular' changes; vowel-gradation or 'ablaut'; etc. etc. One specially interesting feature, cropping out at many points, concerns the influence of popular dialects on the literary and learned language of the Veda, as evidenced by 'Prakritic' phonology, that is phonetic features which appear centuries later in the literary and inscriptional remains of Middle-Indic or Prakrit dialects derived from Sanskrit. Stray instances of this sort of thing have been noticed before, but no one has suspected the enormous scope of it as revealed by the Variants, which will furnish the basis for a new stage in Indian dialectology.—The ms. of this section was prepared primarily by Edgerton but received considerable attention from Bloomfield. Except the Verb section it is nearest to completion and could be prepared for press in a short time.
3. *Noun Formation*. Est. 300 printed pages. Stem and suffix formation of nouns and adjectives. The major part deals with nominal suffixes, and presents a mass of material quite unprecedented hitherto for the study of this very interesting department of linguistics.
4. *Noun Inflection*. Est. 450–500 printed pages. Case, number, and gender of nouns, adjectives, and pronouns. Important for morphology (formally equivalent case-endings, etc.), but even more for syntax (interchange between cases, etc.). For instance, the surprising fact comes out that every single one of the eight cases of the Sanskrit noun interchanges with every other one, usually very many times; except that by a whimsical chance we have not noticed any interchange between vocative and locative. What does this mean? The answer is too long and complicated to give here, but no linguist could fail to be interested in it.

5. *Order of Words*. Est. 300 printed pages. Much has been written on this very interesting linguistic feature—chiefly on the basis of the prose Brāhmaṇa texts, which have been assumed to give a clearer picture of the word-order of primitive Indo-European than any other Indo-European literature. One of many important results of this section of the Variants is this: they furnish proof that the earlier poetic texts of the Veda are just as important, perhaps more important, than the Brāhmaṇas, and should not have been neglected as they have been. No such mass of evidence for Vedic, and incidentally for Indo-European, word-order has ever been collected and sifted before.
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These five sections of the work are all ready at least in preliminary drafts. In addition, Bloomfield collected lists of materials for the following sections, which have not yet been worked up, and the size of which can therefore not yet be estimated.

6. *Synonyms* (very extensive).  
7. *Pronouns*.  
8. *Prepositions and Particles*.

And a few other minor lists of somewhat doubtful character, which may or may not finally prove fruitful.

Bloomfield made no separate collectanea bearing on *Meter*; but this subject constantly comes up in connection with all parts of the work, and it is my opinion that a separate volume dealing with it as a unit would be extremely fruitful and valuable.

FRANKLIN EDGERTON.

THE LINGUISTIC SOCIETY OF AMERICA will hold its Sixth Annual Meeting at Cleveland, December 30, 1929, to January 1, 1930, jointly with the Modern Language Association of America. Headquarters will be at the Hotel Statler, Euclid Avenue at East Twelfth Street, where the sessions of both organizations will be held.

THE SECOND INTERNATIONAL CONGRESS OF LINGUISTS will be held at Geneva, in August 1931, under the presidency of Monsieur Ch. Bally.

THE BUREAU OF LANGUAGE RESEARCH, planned by a Committee of the National Council of Teachers of English under the chairmanship

of Mr. John M. Clapp, has been taken over by the School of Education of New York University, and will be known as an Institute of Communication. The project is in the charge of Professor Walter Barnes, who has recently come to New York University from the Teachers' College at Fairmont, West Virginia. Professor Barnes plans to make a survey of the present situation, then to develop courses for teachers, thirdly to work out a plan of permanent operation for the Institute. (See LANGUAGE 3. 34.)

The three new Honorary Members elected at the New York meeting have all accepted election. We make the following extracts from their letters:

Ich bitte Sie, der Linguistic Society of America meinen ergebensten Dank zu übermitteln für die Auszeichnung, die sie mir durch die Wahl zu ihrem Ehrenmitglied erwiesen hat; ich nehme sie gern an.—P. Kretschmer.

Die Mitteilung, dass die Linguistic Society of America mich in ihrer Sitzung vom 26.-28. Dezember zum Ehrenmitglied ernannt hat, hat mich sehr überrascht. Ich bitte Sie ganz ergebenst, der Gesellschaft meinen aufrichtigen Dank für diese Anerkennung meiner Arbeit auszusprechen, und nehme diese Ehrung umso lieber an, als ich daraus aufs neue ersehe, dass die Sprachforschung in Amerika der jungen Wissenschaft der Afrikanistik ihre Aufmerksamkeit zugewandt hat. Das verspricht einen Fortschritt für die Zukunft, den zu verfolgen mir immer eine besondere Freude sein wird.—Meinhof.

Gratamente impresionado recibe su atenta comunicación participándome el honor de haber sido elegido miembro honorario de esa Sociedad Lingüística de America, en unión de los colegas Sres. Kretschmer y Meinhof.

Acepto muy reconocido el nuevo cargo y ruego a usted se sirva hacer presente al Comité directivo mi profunda gratitud al mismo tiempo que mis homenajes de consideración y compañerismo.—R. Menéndez Pidal.

THE AMERICAN COUNCIL OF LEARNED SOCIETIES announces that grants in aid of research have been made to the following members of the Linguistic Society of America:

LeRoy C. Barret, professor of Latin in Trinity College, Hartford, for purchase of a photo-zinc copy of a *Ms. of the Atharva Veda Paippalada* in the library of the Bombay Branch of the Royal Asiatic Society.

Roy J. Deferrari, professor of Greek and Latin in the Catholic University of America, for the purchase of texts to be used in compiling a *concordance to the works of Prudentius*.

Cony Sturgis, professor of Spanish, Oberlin College, for the purchase of books necessary for his *study of the romantic novel in Spanish literature between 1830 and 1850*.

URBAN T. HOLMES, Professor of Romance Philology at the University of North Carolina, is at the University of Chicago during the spring quarter of 1929, conducting courses in Old French. During this period Professor T. A. Jenkins has been relieved of part of his work, that he may devote more time to the Arthurian Institute recently established at the University of Chicago.

GEORGE W. H. SHIELD, of Los Angeles, was elected president of the American Association of Teachers of Spanish, at the Detroit convention, December, 1928, to serve during 1929.

PROFESSOR WACKERNAGEL sends a correction to a statement in a review by R. G. Kent, *LANG.* 4. 291, regarding an apparent extension of Italian along the line of the St. Gotthard railway north of the tunnel. Our distinguished honorary member says that there are Italians who remain true to their national language, in all parts of Switzerland, but that these scattered individuals do not constitute a real extension of the Italian *Sprachgebiet*, any more than the similar presence of German-speaking officials and employees of the railway to the south of the St. Gotthard tunnel, really extend the German-speaking territory, in a region where Italian is the normal mother-tongue. The speakers of Italian in the valley north of the tunnel are merely scattered immigrants.

THE FOLLOWING NEW MEMBERS have been received into the Linguistic Society, subsequent to the last published list, and up to March 22:

- President Cyrus Adler, The Dropsie College, Philadelphia, Pa.  
(Semitic Langs.)
- Miss Janet R. Aiken, Philosophy Hall, Columbia Univ., New York City. (Research Asst., English and Comparative Linguistics)
- Prof. W. F. Albright, Johns Hopkins Univ., Baltimore, Md.  
(Semitics)
- Dr. Renward Brandstetter, Waldstätterhof, Lucerne, Switzerland.  
(Indonesian; Romanic Langs.)
- Mr. L. Carballosa, Box 303, Berkeley, Calif.
- Mr. Paul R. Carr, 2923 Packard St., Long Island City, N. Y. (Dealer in Oriental and Linguistic Books)
- Prof. Charles A. Downer, 802 W. 181st St., New York City. (Romance Langs., College of the City of New York)

- Dr. G. O. S. Darby, Waldo Court, Wellesley, Mass.  
Mr. Benjamin F. Gravely, Box 209, Martinsville, Va. (Dealer in Linguistic Books)  
Mr. L. S. Hitchcock, Los Alamos Ranch School, Otowi, N. M. (Headmaster, Los Alamos Ranch School)  
Mr. Vincent F. Jankauskas, 1226 Bloomfield St., Hoboken, N. J. (Etruscan)  
Mr. Richard Koch, 907 S. 16th St., Newark, N. J.  
Prof. Harry J. Leon, Univ. of Texas, Austin, Texas. (Class. Langs.)  
Dr. David I. Macht, care of Hynson Westcott & Dunning, Baltimore, Md. (Pharmacological Research; lecturer in Clinical Pharmacology, Johns Hopkins Univ.)  
Mr. C. M. McLean, 3 Chestnut St., Binghampton, N. Y.  
Prof. F. Mezger, Box 4, Bryn Mawr, Penna.  
Mr. Antonio A. Micocci, 3813 Walnut St., Philadelphia, Pa. (Latin, Germantown Friends School, Phila.)  
John Phelps, Esq., 3 E. Lexington St., Baltimore, Md. (Lawyer; English Phil.)  
Prof. Gladys A. Reichard, Barnard College, New York City. (Anthropology)  
Mr. Lessing J. Rosenwald, care of Sears Roebuck & Co., Roosevelt Boulevard, Philadelphia, Pa.  
Prof. T. G. Wesenberg, Butler College, Indianapolis, Ind. (Romance Langs.)  
Prof. Rudolph Willard, 1875 Yale Sta., New Haven, Conn. (English Lit., Yale Univ.)



## BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on 'the advancement of the scientific study of language'.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

**Acta Philologica Scandinavica** 3. 289-396 (1929).

**Additional Remarks on Brevity as a Criterion of Language.** By A. R. NYKL. *Am. Journ. Phil.* 49. 378-83 (1928).

**American Speech** 4. 161-260 (1929).

**Anthropos** 23. 749-1114 (1928).

**Archiv für das Studium der neueren Sprachen und Literaturen** 154. 161-320 (1928).

**Asiatica; a Record of Literature dealing with the East and with Africa.** 2. 1-72 (1929).

**Beiträge zur Lehre vom indogermanischen Charakter der etruskischen Sprache.** I Teil. Pp. x + 150. By EMIL GOLDMANN. Heidelberg: Carl Winter's Universitätsbuchhandlung, 1929.

**Biblica** 9. 377-496, 65\*-119\* (1928); 10. 1-128, 1\*-16\* (1929).

**Bolletino delle Pubblicazioni Italiane** Nos. 327-9 (1928).

**La Cultura** 7. 441-535 (1928); 8. 1-128 (1929).

**Gnomon; kritische Zeitschrift für die gesamte klassische Altertumswissenschaft** 5. 1-112 (Bibliogr. Beilage 1) 1929.

**Die griechische Dichtung.** Pp. 383. By ERICH BETHE. Wildpark-Potsdam: Akademische Verlagsgesellschaft Athenaion. (Handbuch der Literaturwissenschaft edited by Oskar Walzel.)

**Hispania; a Journal devoted to the Interests of Teachers of Spanish** 12. 1-224 (1929).

**Indogermanische Forschungen** 46. 305-90 (1928).

**Italica** 6. 1-35 (1929).

**The Journal of the Polynesian Society** 37. 359-460 (1928).

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# PLACE WHITHER IN HITTITE AND THE USE OF PROPER NOUNS IN THE STEM FORM

E. H. STURTEVANT

YALE UNIVERSITY

[Hittite nouns in *-a* that denote the end of motion are not locatives but sentence doublets. They come partly from accusatives in *-an*, and in part parallel the dative-locatives in *-i*, which (cf. Engl. *where, here, there*) had come to express the end of motion. The dative-locatives in *-i* and those in *-a* both continue PIE cases that ended in an *i*-diphthong. The forms were originally conditioned by the initial sound of the following word. Subsequently the analogic extension of the *-a* form was favored in expressions of the end of motion by the fact that this was the only function common to the accusative and the dative-locative.

The construction is particularly frequent in proper names; and as the form resembles Babylonian proper names, the result has been the constant appearance of Hittite proper nouns in Accadian texts under what seems to be the form of their stem.]

Forrer<sup>1</sup> has recently called attention to the use of Hittite noun forms ending in *a* to denote the end of motion. The usage is especially common in the earliest texts, such as the Anittaš text,<sup>2</sup> where we read <sup>URU</sup>Neša 'to Nešaš' (four times), <sup>URU</sup>Zalbuwa 'to Zalbuwaš', <sup>URU</sup>Šalatiwara 'to Šalatiwaraš', *aruna* 'to the sea', *tunnakišna* 'to ?'; but there are numerous instances in the texts of all periods, particularly in certain words, including *lahha* 'to battle', *šenahha* 'into line of battle' (?), *parna* 'foras', *tapuša* 'to one side', *aška* 'to the gate' (?), and the local adverbs *anda* 'to, into', *arha* 'away', *appa* 'back', *ištarna* 'among', *katta* 'with, down', *para* 'forth', *šara* 'up'. Forrer's other examples from common nouns had better be disregarded until we know more about them. To his list must be added *tuliya* 'to council' (see Sommer *loc. cit.*), and *šuhha* 'to the roof'.<sup>3</sup>

<sup>1</sup>*Altorientalische Studien Bruno Meissner zum Sechzigsten Geburtstag Gewidmet*, 1. 30-35 (1928). Forrer should have referred to Sommer, *Boghazköi-Studien* 7. 14, 10. 67, and Tenner, *Ein Hethitischer Annalenteil des Königs Muršiliš II*, 19, both of whom had mentioned some of these forms.

<sup>2</sup>*Boghazköi-Texte in Umschrift* 2. 7. 30 = *Keilschrifttexte aus Boghazköi* 3. 22.

<sup>3</sup>See Götze, *Kleinasiatische Forschungen* 1.99.

Forrer distinguishes these forms sharply from the accusative and from the dative in *i*, the two cases which elsewhere in Hittite documents denote the end of motion. He calls the forms in *a* 'locatives', and signalizes his discovery of a seventh case in Hittite with these words (p. 35):

Durch die Feststellung des Lokativs auf *a* als siebenten Kasus des Alt-Kanisischen (*Kanisisch* is Forrer's name for what others call Hittite) ist ein wichtiger Schritt zur Verbesserung der Vergleichung mit den indogermanischen Sprachen getan. Denn wenn wir vom Vokativ absehen, der im Kanisischen gleich dem Nominativ ist, bietet das Alt-Kanisische die sieben Kasus, die für das Urindogermanische erschlossen, aber in keiner indogermanischen Sprache vollzählig erhalten sind.

It is hard to say whether Indo-Europeanists will be more surprised to learn that no IE language preserves all seven of the original cases, or that the discovery of a 'locative' denoting the end of motion squares the Hittite case system with that of primitive IE. So far from improving our comparison of Hittite with IE, the assumption of a distinct case with ending *a* and denoting the end of motion would effectually separate Hittite from IE as far as the case system is concerned. For nothing could be clearer or simpler than the local uses of the cases in the IE parent speech; the accusative denoted the place to which (Latin *domum*), the locative the place where (Lat. *domi*), and the ablative the place whence (Lat. *domo*). Forrer's discovery must be explained away if we are going to maintain the identity of these two case systems.

The forms in *a* are in large part accusatives. I have shown<sup>4</sup> that there is a variation between forms with and without final *n* in the accusative adverbs *katta(n)*, *appa(n)*, *anta(n)*, and in the nom.-acc. singular of neuter vowel stems. To the examples of neuters in *an* there cited may be added *pedan* 'place';<sup>5</sup> the phrase *uttar liliwan* 'urgent matter' in *Keilschrift-Urkunden aus Boghazköi* 12. 65. 7; and from the great Hattušiliš text:<sup>6</sup> *KÚR Ippaššanama dannattan ešta*, 'the country of Ippaššanaš, however, was devastated', and : *nat EGIR-pa* <sup>URU</sup>*Hattušan iyanun*, 'and I made it Hittite again'. Neuter nominatives and accusatives in *a*, *i*, and *u* have been recognized ever since Hrozný's *Die Sprache der Hethiter* 6, 7, 19, 20, 21, 41-7. Masculine-feminine nouns less frequently lack *n* when functioning as direct object, but it is possible to cite several clear instances.

<sup>4</sup>*American Journal of Philology* 48. 249 f. (1927).

<sup>5</sup>See Ehelolf, *KF* 1. 146, (1927).

<sup>6</sup>Götze, *Hattušiliš* pp. 14. 12, 20. 68.

2BoTU 8 = KUB 1. 16. 2. 4 : DUMU-laman halzihhun, 'I called my son.'<sup>7</sup>

Knudtzon, *Die El-Amarna Tafeln* 31. 19 ff. : našta <sup>L<sup>h</sup></sup>halugatallattin ammella <sup>L<sup>h</sup></sup>halugatallan EGIR-pa para hudak nai, 'then immediately send back your messenger and my messenger.'

KBo. 6. 3. 1. 37 = Hrozný, *Code Hittite* 12 : takku LÚ.URU.LU-aš EL.LAM ištamanaššan kuiški iškallari, 'if any one cut off (?) a free man's ear.'

2BoTU 23 D = KUB 11. 5. 1. 10 : [nukan <sup>1</sup>] Zidantan addaššan kue[nta], 'and so he killed Zidantaš, his father.'

Rare as direct objects in *a* undoubtedly are, the distinction between accusative and 'locative' in *a* was by no means so sharp as Forrer would have us believe. Indubitable accusatives not infrequently denote the place whither.

2BoTU 4 A = KBo. 3. 16. 3. 6 f. : SAG.DU-an tankuwayawata [udn]e keššarta tehhi, 'myself and the black lands I put into your hand.'<sup>8</sup>

KUB 14. 1. 1. 82 = Götze, *Madduwattaš* 20 : [nuw]a <sup>1</sup>Madduwatta tuekkuš anda mekki arhun, 'in die Seele des Madduwattaš bin ich sehr hinein gelangt.'

2BoTU 18 = KBo. 3. 55. 2. 10 : [<sup>URV</sup>Ar]innan para pi-i-ir, 'they went forward to Arinnaš.'

2BoTU 33. 2. 12 : [ ]ya <sup>URV</sup>Gašgan uwatet, 'he took [ ] to Gašgaš.'

2BoTU 44 = KUB 19. 13. 1. 32 : [n]aškan <sup>HUR-SAG</sup>Illuriyan š[ara paīt],<sup>9</sup> 'and he went up into Mount Illuriyas.'

2BoTU 60 = KUB 19. 37. 3. 55 : [nu <sup>1D</sup>]Maraššandan katta pa[un], 'and I marched down to the Maraššandaš River.'

It is therefore extremely probable that some of the forms in *a* which denote end of motion are in origin accusatives. To start with, the loss of *n* was due to sandhi; before *š*, *n* was regularly lost, and there was at least a tendency for *n* to be assimilated to a following *t*.<sup>10</sup> Before our earliest documents the form without *n* had spread beyond its original limits, and, in the noun, it tended to become specifically a means of denoting the end of motion. What induced this specialization we shall see in a moment. The adverbs *katta(n)*, *appa(n)*, etc., which were

<sup>7</sup> Cf. Götze. *Zeitschrift für Assyriologie* 34. 172, 173, 177.

<sup>8</sup> The duplicate, 2BoTU 4 B 3.10f = KBo. 3. 18. 10 f., reads: *dankuwayawa KÚR-e [kiš]širita tehhi*.

<sup>9</sup> Cf. 1. 10: [naškan<sup>HUR-SAG</sup>]šun šara paīt.

<sup>10</sup> Cf. *AJP* 48. 250, 252, and references.



originally accusatives, continued to show the forms with and without *n* indifferently.

The accusative, however, was scarcely the sole source of Forrer's 'locatives' in *a*. He calls attention (p. 30) to *tunnakišna* from the neuter *tunnakeššar*.<sup>11</sup> A similar case is *takna* 'to the ground' from neuter *tegan*, if Forrer (p. 33) is right in citing it in this sense. For *takna* in the true locative sense, 'on or in the ground', see below, p. 143. These forms may, of course, have been analogical creations on the model of accusatives of the *a*-stems after loss of *n*, thus: *lahhi* (dat.) : *lahha* = *tunnakešni* : *tunnakešna*; but we have seen that the separation of the forms in *a* from the accusatives in *an* was never complete, and in any case we need an explanation of the tendency toward a specialization in meaning of the forms in *a*.

Now the latter have about as many points of contact with the dative-locatives in *i* as with the accusatives. Just as the adverb *katta* has beside it an equivalent *kattan*, so also there is a form *katti* which is used with a possessive enclitic: *katti-mi* 'by my side, with me', *katti-ti* 'with you', *katti-ši* 'with him'. Similarly beside *\*hanta* = *āvra*, which has to be assumed on account of *hantezziš* 'first' (see LANGUAGE 4. 229 and references), we find the form *hanti* 'separately' (see Götze, *KF* 1. 231 f.), whose original meaning must have been 'in front, before'.

The commonest way of expressing end of motion in Hittite is by the dative-locative; no doubt we have here a development similar to that in English *where*, *here*, *there* as end of motion. At any rate the forms in *i* are from the earliest times, and increasingly, used in the value that Forrer has noted for the forms in *a*. I cite a few of the archaic instances.

2BoTU 8 = KUB 1. 16. 3. 19 : [ ]<sup>URU</sup>Hattušima uizzi, 'he goes, however, to Hattušaš.'

2BoTU 12 A = KBo. 3. 34. 2. 10 : šan arnut šan<sup>URU</sup> Ankui IR.DI, 'he caused him to come, and brought him to Ankuwa.'

2BoTU 13 = KBo. 3. 38. 2. 17 : [ ]<sup>URU</sup>Kummani EGIR-pa paizzi, 'he returns to Kummana.'

2BoTU 23 A = KBo. 3. 1. 1. 27 f. : nu<sup>URU</sup> Halpaš NAR.RA.MEŠ aššuššet [<sup>URU</sup>]Hattuši udaš, 'and the captives and property of Halpaš he brought to Hattušaš.'

Peculiarly significant are the passages where forms in *i* and in *a* are used side by side. The earliest of these is from a fragment of the Naram-Sin text:

<sup>11</sup>Forrer (p. 31) considers *udniya* the 'locative' of *udne* 'country'; but, if it is not to be analyzed as *udni-ya*, with *ya* 'and', it may belong to the stem *udneya-*, which must lie at the base of the familiar *udneyanza*.

2BoTU 4 A 2. 14 = KBo. 3. 16. 1. 14 f. : še EGIR-pa A. NA 'NA.RA. AM. 'SIN-na [E]N-ašši halukan peter, 'and they carried the message back to Naram-Sin, his lord.' There is no doubt that ši is here the dative-locative of the possessive pronoun, and the sign áš may indicate a form in final *a* for the substantive itself. As to the latter point, however, we cannot speak with confidence, since the juncture of an enclitic and an ideogram is not always represented with phonetic exactness.

I cannot translate the fragmentary passage in 2BoTU 17 A 3. 33 = KBo. 3. 46. 1. 33 : hurlamaššan henkan šiya[ ]; since a verb-form precedes, this is the beginning of a sentence, and so we may analyze the first word: hurla-ma-šan. The duplicate, 2BoTU 17 B a 2. 4 = KBo. 3. 53. 4 reads: hurlimaššan.

2BoTU 58 B = KBo. 4. 4. 2. 61 : nukan <sup>URU</sup>Aštata URU-ri šara paun, 'and so I marched up to Aštata, the city.'

KUB 6. 45. 3. 12 : DINGIR.MEŠ kuedani pidi tuliya tiškanzi, 'to which place the gods come to council.'

The forms in *a* are also equivalent to the dative-locative in *i* in the true locative sense. Since Forrer does not mention this value of the 'dative' in *i*, it will be worth while to illustrate that as well as the locative force of the forms in *a*.

2BoTU 6 = KBo. 3. 21. 3. 14 f. : <sup>URU</sup>Zippirimaz <sup>UTU</sup>-waš ukturi URU-ri dunnakkešnaš Ê-ri andan ešhut, 'in Zippiraš(?), however, always the city of the sun-god, dwell in the house of dunnakkeššar.'

2BoTU 7 = KBo. 3. 22. 1. 55 : nu <sup>URU</sup>Neši URU.HAL wetenun, 'and in Nešaš I built a fortress.'

2BoTU 18 = KBo. 3. 55. 3. 10 : [ ]<sup>URU</sup>Hattuši ešmi. 'I am in Hattušaš.'

2BoTU 23 A = KBo. 3. 1. 2. 18 : ZAB.MEŠ-zamišša <sup>URU</sup>Zizzilippi ešta, 'and my army was in Zizzilippaš(?).'

2BoTU 8 = KUB. 1. 16. 3. 56 f. : nu ki [KA.ME]Š ITU-mi ITU-mi pirantit halzeššandu, 'and let them recite these words before you every month.'

KBo. 6. 13. 1. 8 : [a]<sup>URU</sup>elzimitwa takna aršikkīt, '“plant my elzi in the ground”.'

2BoTU 10 γ 2. 15 = KBo. 3. 28. 2. 16 : le nepiši <sup>HAL</sup>ištarnikši taknama menuš ištarni[kši]. I do not understand this passage; but the parallelism of takna with nepiši is certainly significant. Cf. Sommer and Ehelolf, BoSt. 10. 67.

KBo. 6. 29. 2. 11 f. = Götze, Hatt. p. 48 : nu šarazzi katterraya anda maruwa[i]t, 'and between superior and inferior she decided(?).'

To the dative-locatives in *a* must also be counted the infinitives in *anna* (e.g. *akuwanna* 'to drink', *piyanna* 'to give')<sup>12</sup> Friedrich (p. 176) is right in thinking that the infinitive-like *idalawanni* is dative-locative of a verbal noun *\*idalawatar* (so also Götze, *Madd.* 95); but in precisely the same way *akuwanna* must be dative-locative of a noun *\*akuwatar*. The alternative supposition that *akuwanna* contains a suffix *na* (originally *no*) is not acceptable until we find independent evidence for such an abstract-forming suffix. Consequently Sommer (p. 54) was surely right in interpreting *idalawanni* as an infinitive; and Friedrich (p. 175) need not have hesitated to supply [*idalawann*]attakkan in Text C of the Kupaṭa-<sup>p</sup>KAL treaty, where Text D reads *idalawanni*.

The origin of the Hittite dative-locative is not altogether clear; but it is pretty certainly cognate with one or several of the IE case forms with final *i*-diphthong, e.g. *\*yoikoi* 'at home', *\*yirōi* 'to the man', *\*sntai* 'ὄντι', *\*egnēi*(?) 'in the fire'. The diphthong *ai* is quotable from a few archaic and archaizing texts, e.g. 2BoTU 23 A = KBo. 3. 1. 2. 49: *šallai haššanai*,<sup>13</sup> KBo. 5. 1. 4. 25: *šuppai*, and also in *i*-stem adjectives of all periods.<sup>14</sup>

Before consonants the diphthong *ai* became a monophthong whose precise value is difficult to determine. In the neuter plural of the pronominal declension we have *kwe* 'quae', *ke* 'haec', and *ape* 'illa'; but the medial ending corresponding to Gk. *ται* is *ti*,<sup>15</sup> and in our dative-locatives also the usual vowel is *i*. Under these circumstances it is not altogether satisfactory to assume that the pronunciation was always *e*, but that the alternative orthography with signs containing *i* was preferred in some categories and not in others. There is too much regularity for that. Neither is it easy to ascribe *e* to one original diphthong and *i* to another; for both the neuter plural pronouns (with *e*) and the medial ending *ti* correspond to forms with *ai* in such IE languages as preserve the diphthongs. Possibly Pre-Indo-European *ei* (and *ei*?) became *i* (in the medial ending and the dative), while PIE *ai* became *e* in the pronouns.

Since consonantal *i* was lost between like vowels,<sup>16</sup> *ai* must have become *a* before words beginning with *a*. In the interior of a word

<sup>12</sup> See Sommer, *BoSt.* 7. 55, f., and Friedrich, *Staatsverträge des Hatti-Reiches in Hethitischer Sprache* 175 ff.

<sup>13</sup> See Götze, *Hatt.* 1091.

<sup>14</sup> Sommer and Ehelolf, *BoSt.* 10. 75.

<sup>15</sup> See Sturtevant, *LANGUAGE* 4. 168 (1928).

<sup>16</sup> See Götze, *Madd.* 97; Sturtevant *LANGUAGE* 5. 9.

contraction followed such loss of consonantal *i* (\**hatrayanzi* > *hatranzi*, \**šarkanteyeš* > *šarkanteš*), but the influence of the equivalent forms incapable of contraction (e.g. *lahhi t-*, *lahha e-*) prevented the loss of a syllable here.

In the denominatives in *a(i)* the combination \*\**aḫeti* in the third singular most frequently yields such orthographies as<sup>17</sup> *a-ra-a-iz-zi*, *a-ru-wa-a-iz-zi*, *ir-ha-a-iz-zi*, *ir-ha-iz-zi*, but we also find *šú-ta-a-i-iz-zi*, *šú-wa-a-i-iz-zi*, *šú-wa-a-i-e-iz-zi*, *šú-wa-i-iz-zi*, *šú-u-i-e-iz-zi*, *kap-pu-u-e-iz-zi*, *kap-pu-u-e-zi*. Clearly the standard orthography was not a perfect phonetic representation of these forms. The tendency to work in the *e*-sign must mean that the forms ended in *ezi* (there was no separate sign for *ez*). It is not so easy to determine whether we should say *arayezi* or *araēzi*. I am inclined toward the latter alternative by the orthography of the third singular of *taya-* 'steal' (see Götze *Madd.* 97). The most important variants are *ta-a-i-ya-zi*, *da-a-i-ya-iz-zi*, *da-i-ya-zi*, *ta-a-i-e-iz-zi*, *ta-a-i-iz-zi*, *da-a-i-iz-zi*. Here it is quite evident that the pronunciation was *tayezi*, and the very different state of the evidence in the *a(i)* denominatives therefore indicates the pronunciation *araēzi*. No doubt the loss of consonantal *ḫ* in the denominatives is due to the fact that all of them are longer than *taya-* by at least one syllable. Probably, therefore, final *ai* regularly became *a* before *e*, unless *ai* stood in an initial syllable.

I am inclined to think that the ending *ai* of the *i*-stem adjectives represents PIE *ēi*, which is implied for the locative case by Sanskrit *u*-stem locatives like *śatrau*. That original long diphthongs remain as diphthongs (*ai* or *au*) in Hittite, is a thesis that I hope to establish elsewhere. Whether the dative-locatives in *ai* are to be explained thus or as due to some sandhi conditions, they have evidently had no share in establishing our forms in final *a*.

The result of the phonetic development of *ai* before initial *a* or *e* was thus the same sound which came from *an* before initial *š* or *t*. Since the dative-locative and the accusative had just one value in common, namely the end of motion, the two sandhi forms in *a* reinforced each other in precisely this value. It is, then, not strange that there was for a time a tendency to generalize the ending *a* as the mark of a new case.

The construction of the end of motion is particularly common with proper nouns. A large majority of the forms in *a* discussed by Forrer (*op. cit.*) are names of towns, and the names of mountains and rivers

<sup>17</sup> See Götze, *Madd.* 86 ff.

frequently stand in the same construction. Furthermore the names of persons as well as of cities very frequently occur as direct or as indirect object, so that they would often show forms ending in *a*. Now the Hittite cuneiform was constantly under the influence of Babylonian models, and these forms in *a* furnished a welcome point of similarity with Babylonian proper nouns. Small wonder, then, that Hittite proper nouns of the *a*-declension constantly appear in their 'stem-form' in Accadian texts and introductory paragraphs, and also after the Accadian prepositions *INA*, *ŠA*, etc., and after *KÚR* 'country'.<sup>18</sup>

In the case of the *i*-stems, the loss of the *n* from the accusative ending left a final *i*, which harmonized both with the dative-locative in its ante-consonantal form and with another common termination of Babylonian proper nouns. Consequently we find the 'stem-form' *Hatti* under the same circumstances as the 'stem-form' *Hattuša*.

The consonant-stem neuters also fell in with a frequent type of Babylonian proper nouns, and the *u*-stem accusatives with loss of *n* corresponded with another. These types are much less common in our Hittite documents, but probably just because proper nouns of these declensions were less numerous.

<sup>18</sup> See Götze, *Hatt.* 77 ff.



## ETYMOLOGICAL MISCELLANIES

FRANCIS R. PREVEDEN

DE PAUL UNIVERSITY

[Discussion of words cognate with: 1. Skt. *gandha*-; 2. Lith. *našlys*; 3. OIr. *dorn*; 4. NHG *Ilitis*; 5. Ch. Sl. *mlěko*.]

1. Sanskrit *gandha*- 'odor', as in the compounds: *sugandha*- 'fragrance', *durgandha*-, *pūtigandha*- 'stench', etc. Its cognates are probably Av. *gainti*-, NP *gand* 'stench', however with a different suffix.

C. C. Uhlenbeck, *Etym. Wtb. d. Altind. Sprache* 77, finds its origin obscure, while Bartholomae, *Altiran. Wtb.* 493, does not offer any etymology.

To me the derivation of this word seems clear. Sk. *gandha*- came about through the root-extension of the verb *han-* 'beat, strike, kill', the increment *-dh-* causing the deaspiration of the IE labiovelar (*g<sup>w</sup>h*). The semantic evolution of the word is in line with the group of terms which derive the meaning of 'smell, stink' from the words for 'strike, beat, smite, shock'.

This change is seen in the following group. ON *hnissa* 'steam or smell from cooking' is related to *hnita* 'strike, smite, thrust'. OE *stincan* 'smell sweet, stink', OHG *stinkan* 'emit a smell, be fragrant', etc. are cognate with Goth. *stiggan* 'thrust, push'. Russ. *razitʹ* '1) beat, strike, hit; 2) smell bad, stink' (cf. *porazitʹ* 'smash, defeat, surprise'), as in *razitʹ vodkoj* 'smell of brandy', *razitʹ gnijʹju* 'stink rot', etc. SCr. *udarati* 'beat, strike; stink', as in *od njega udara rakija* 'he reeks with brandy', literally: 'brandy strikes from him'. However, the compound *zaudarati* (*vinom*, *rakijom*, etc.) means only 'smell badly, stink'.

So Skt. *gandha*- 'smell, odor' goes back to an IE *\*g<sup>w</sup>hon-dh-o-* 'stroke, beat', with the restriction of meaning to the olfactory sensations in Indo-Iranian. Probably the same root-extension appears in Lat. *defendo*, *offendo* (from *\*g<sup>w</sup>hen-dh-ō* or *\*g<sup>w</sup>hen-d-ō*) 'defend; strike, attack, etc.', and in the Germanic group, represented by OHG *gund-*, *gunt-* 'fighting, battle', etc., where it alternates, however, with the increment *-t-*, as seen in ChSl. *žetva* 'harvest', Av. *gainti*- 'stench', etc. (Walde<sup>2</sup> 224f., with refs.; O. Schade 357f., with refs.; etc.)

2. Lith. *našlỹs* 'widower', *našlė* 'widow', etc.

Through secondary derivation this word embraces also the notions: orphan (*našlaitis*, -e'), widowhood (*našlỹste*'), etc., with the idea, common to them all, of 'survival after someone's death'.

According to Leskien's *Bildung d. Nom. i. Lit.* 462, the formations *našlỹs*, *našlė* belong to the group of action- or agent-nouns, derived from a primary element (verb or noun) by the attachment of the formative suffix *-lys*, *-le*.

Semantically this group should be separated from *nešti* 'carry, bear', *našta* 'burden, load', *našus* 'fertile, productive', etc., as the meanings are obviously irreconcilable.

On the other hand *našlỹs*, etc., fit well, both by form and meaning, in the IE group *\*nek-*, *\*nok-*, etc. 'die, death, dead, etc.', as in Sk. *naçati* 'perish, pass away', Av. *nasu-* 'corpse, carrion', Gk. *νέκρως*, *νεκρός* 'dead, corpse', Lat. *nex* 'murder', ON *nagljar* 'Totenschiff', etc. (Walde-Pokorny 2. 326).

The semantic development of our forms may have taken different courses. If taken as a (passive) action-noun, *našlỹs* may mean 'one visited, deprived by the death'. (Cf. Lett. *naslis* 'cane, reed' probably through 'the thing carried by the water', here, of course, the root *nes-* 'carry' being the productive base. Leskien, *Ablaut* 364; Mühlenbach-Endzelin 2. 694).

Ascribing to the root *naš-* substantive force 'death, the dead', the meanings 'widow, widower' would naturally follow through an intermediate 'death-sider' or 'death-survivor'.

If, on the other hand, the formative *-l-*, in conjunction with the verb-root, contributed the noun *\*naš-l-i-s* 'the dead one, corpse' (cf. Gk. *νεκ-ρ-ός*, ON *nag-l-* [Noreen, *Lautl.* 178] 'the dead one, corpse'), then the guna-form *naš-l-ai-* would give, with the diminutive *-tis*, the word for 'orphan' through a 'little one, pertaining to the dead; the child of the dead'. In this light *našlė*, *-lỹs* 'widow, widower' can be taken as substantivized forms of an adjective, with the force 'pertaining to a dead man (*\*naš-l-i-s*)'.

Although several ways seem open to the semantic derivation of *našlỹs*, etc., our group goes back, beyond reasonable doubt, to IE *\*nek-*, *\*nok-*, etc. 'die, death, dead, etc'. For similar formation cf. SCr. *pòsmrče* 'child born after its father's death', literally 'the after-death-little-one'.

3. Breton *dourn*, *dorn* 'hand': OIr. *dorn*, *dorn-ach* 'fist, hand', NIr. *dearna* 'palm', Welsh *dwrn*, Corn., Gael., NIr. *dorn* 'fist': Alban. *dore* 'hand'.

G. Meyer, originally in favor of this connection, gives it up in his *Etym. Wtb. d. Alban. Spr.* 72, combining the Albanian word with Gk. *χείρ*, Armen. *jer* 'hand', etc., while Macb. 140, Henry 106, Stokes 148, 154, derive the above Celtic group from IE *\*der-* 'split, tear'.

In my opinion, the whole Celtic group, and Alban. *dore*, go back to IE *\*dher-*, *\*dhor-* 'hold, carry, support', as seen in Sk. *dhārayati* 'hold, carry, support', *dharmā-* 'holder, support, law', Gk. *θώραξ* 'chest', *θρόνος*, *θρᾶνος* 'seat, bench', etc.

There is no phonetic difficulty in this connection, as the Celtic words may go back to IE *\*dhor-n*, and the Albanian form to IE *\*dhērā* (instead of to IE *\*ghērā*, as assumed by G. Meyer), both within the gradation system of the IE root *\*dher*. Semantically, they all denote an essential function of the hand as 'holder, carrier, support'. Precisely this feature seems to be reflected in the semantic variations of the Celtic forms: 1) fist, 2) palm, 3) hand.

4. a) NHG *Iltis* 'polecat'; b) Lat. *ōlo*, *ōlere* 'smell'; c) ON *almr* 'elm-tree', etc.

The NHG *Iltis* 'polecat' is conspicuous for its large number of by-forms through various periods and in most dialects. Grimm's Dictionary (IV<sup>2</sup>, 2061) gives 33 forms, without, probably, completing the list. Those of interest to us are: OHG *illi(n)tiso*; *elledis*; MHG *eltes*; *illis*; *elnte*; *ellentis*; *ellintisel*; Bavar. *elledis*; Upper Saxon. *iltnisz*; Austr. Siles. *iltnis*; *eltnis* (the last two dialects show obvious metathesis of *n*), and Low German (Middle and New) *ilk*; *ülk*; *elk*; *illink*; *ullink*, etc.

The etymology of this word is still being sought, although Grimm's Dict. recognizes in it a compound, consisting of *il* and *tis*, but fails to explain either. F. Kluge<sup>10</sup> explains the OHG form as *\*illit-wiso*, relating the second part to NHG *Wiesel* 'weasel'. P. Lessiak (accord. to O. Schrader<sup>2</sup> 2. 656) takes *tis* for a separate word and connects it with ON *dis* 'a goddess or priestess, a female guardian angel', giving the compound a mythological explanation.

The presence of the nasal in many a historical and modern dialect form of the word, speaks against the separation into *il* and *tis*, and in favor of the one proposed by Kluge. Furthermore, the nasal seems to hold the key to the compound, as the combination *-nt-* is highly sug-

gestive of a participial suffix. Thus we can reconstruct our word into OHG *\*illenti-wiso*, *\*ellenti-wiso*, or, in accordance with MHG *ellintisel*, into OHG *\*ellenti-wisula*, etc. The abbreviation, contributing the forms OHG *illi(n)īso* or *\*ellentiso*, etc., may have come either as a result of haplology, or through the combinatory loss of *w* (cf. OHG *burgari*: OE *burg-ware* 'town-folk', etc.), followed by the contraction of *i*. Further reductions resulted from the loss of the unstressed syllables in the compound. Thus both vowels in the modern form *Illis* represent the stressed syllable of the two separate elements of the compound.

F. Kluge's explanation of the second part of the compound by *\*wiso* or *\*wisula* 'weasel', is convincing, as the polecat actually is a species of weasel, which seems to derive its name from a word denoting or suggesting *bad smell, stench*. Such is precisely the derivation of the Portuguese *toirao, tourao* 'weasel' from L. Latin *\*putōrius* 'stinking' (ML 6884). Still larger is the group of similar formations in various languages for the notion *polecat*. So Fr. *putois, chat putois*, NProv. *pūdis* 'polecat' come from Lat. *pūtīdus* 'stinking' (ML 688). Ital. *puzzola*, Ferraran *sputsal*, Pavian *spūson* and Soran *kano pettsill'ē* 'polecat' are derived from L. Latin *\*pūtium* 'stench' (ML 6878ff.). (Cf. Fr. *punaise* 'bed-bug' from L. Latin *pūtināsius* 'stinking'). Finally, Pol. *tchórz*, SCr. *twor*, Russ. *chorъ, chorekъ* 'polecat' from an earlier *\*dъhorъ* 'stinker'.

After this, what can be the meaning of the assumed participial forms: *\*illenti*, *\*ellenti*? The lack in West Germanic of a verb, with a corresponding form and meaning, is more than offset by the ON *ilma* 'smell sweet, scent', *ilmr* 'sweet smell, fragrance', etc. At the same time it should be noted that the interchange between 'smell sweet' and 'stink' is rather common, as can be seen from OHG *stinkan* 'emit a smell, be fragrant', OE *stincan* 'be fragrant, stink', Lett. *smirdet* 'stink' and *smarša* 'odor', Russ. *vonъ* 'stench', SCr. *vonj* 'fragrance', Russ. *vonjatsъ* 'stink', Pol. *woniec* 'smell, be fragrant', etc. It is not unreasonable, therefore, to set up for OHG or West Germanic forms such as *\*illon*, *\*illen*, *\*ellon*, *\*ellen*, etc., with the meaning 'smell, reek, stink'. Thus the assumed *\*ellenti-wiso*, with its actual historical forms, means simply 'the stinking weasel', identifying the animal by its most striking characteristic.

Compared with Fr. (*chat*) *putois* 'stinking cat', NE *polecat* and Soran *kano pettsill'ē* 'stinking dog', in NHG *Illis* we find another animal involved: the *weasel*. Since this latter presumably also means 'stinker',

the OHG *illi(n)tiso* is a tautological formation, similarly to OHG *lintwurm*, *lindwurm* 'dragon', Dan. *kildvæld* 'well, fountain', NE *courtyard*, *fulfill*, Hungar. *rabszolga* 'slave' (from *rab* 'slave' and *szolga* 'servant'), etc., where both elements of the compound are synonymous.

Between the OHG *\*illen*, *\*ellen* and the ON *ilma*, there is a difference of root increments, attached to an IE *\*el-*, *\*ol-* 'smell, stink'. So the OHG forms go back to IE *\*el-n-*, and ON *ilma* reverts to IE *\*el-m-*, while the LG *ilke*, *ülk*, *elk*, etc. 'polecat' may come from IE *\*el-g-* 'smell, stink'.

Outside of the Germanic the IE *\*el-*, *\*ol-* 'smell, stink' is reflected in Lat. *olō*, *olere* and *oleō*, *olēre* 'smell, stink', *olfacere* 'smell, scent', etc. Contrary to the assumption of a Sabine change (*d* : *l*) in the above forms, *olō*, etc. are independent of IE *\*od-* 'smell', as seen in Lat. *odor*, Gk. *ὄζω*, Lith. *ūdžù*, etc. 'smell'. (For similarity of form and meaning, both from different sources, cf. Russ. *\*uchatʹsʹ* 'smell', as in *blagouchatʹsʹ* 'smell sweet, diffuse fragrance', and *njuchatʹsʹ* 'smell, sniff').

With the increment *-m-*, the IE root *\*el-*, *\*ol-* appears in Lat. *ulmus*, Mlr. *lem*, Nlr. *leamhan* (from *\*l-m-o-s*), OE, OHG *elm*, MHG *ilm*, Dan. *alm*, ON *almr*, etc. 'elm-tree'; ON *ilma* 'smell sweet, scent', *ilmr* 'sweet smell, fragrance'. Thus ON *almr* 'elm-tree' is an ablaut-form of ON *ilma* 'smell sweet, scent', etc., which is in line with a frequent method of forming the names of trees, plants, or fruits, especially aromatic ones, e.g., OPruss. *smorde* 'common bird-cherry' (cf. Lith. *smirdėti* 'stink'); Russ. *smorodina* 'black currant', (cf. *smerdetʹsʹ* 'stink'); SCr. *mirisavka* 1) 'muscadine grapes', 2) 'muscadel pear', (cf. *miris* 'odor, fragrance'); NHG *Stinkblume* 'velvet-flower', *Stinkbaum* 'stinking bean-trefoil', etc. Similar examples are furnished also by several Romance dialects. So French, dial. of Champagne *pet* 'mountain-ash, service-tree', Dial. of Normandy *püt* 'teucrium pseudo-chamaepitys', Haute-Loire *püde*, Corèze *peduze*, etc. 'mountain-ash, service-tree', all from Latin *pütidus* 'stinking' (ML 6878).

The group for *alder-* and *elm-tree*, deduced by Walde-Pokorny 1. 151f., from the root *\*el-*, is impressive for the number of derivatives from the root *\*el-*, *\*ol-* in the sense 'smell, stink', which seems more logical than the derivation from either 'yellow' or 'to bow'. It has been shown above that the words, denoting olfactory sensations contribute many plant and animal-names, while the interchange of the above notions in the parent-speech is placed in evidence by the IE origin of many names for wood, forest, tree, and certain parts of the tree. For the same reason it does not seem impossible that *\*el-*, *\*ol-* 'smell, stink'



is also at the base of Walde-Pokorny's groups 6 and 7, detailing names of certain animals and large water-birds. Semantically nearest to our root stands Walde-Pokorny's group 4 (\**el-*, \**ol-* 'be mouldy, rot', although the Swed. dialect-forms would seem to justify also the meaning 'stink'), which may reflect the scattering of meanings along the line of development of the source-meaning 'stink'.

5. Ch. Sl. *mlěko*, SCr. *mljeko*, Russ. *moloko*, etc. 'milk'.

The old view that the ChSl. *mlěko*, etc., is borrowed from Germanic, is long disposed of. (A. Brückner, KZ 45. 104f; SEJP 340; O. Schrader<sup>2</sup> 2. 64f; A. Stender-Petersen, *Slav.-German. Lehnwortkunde* 44; E. Berner, *Sl. Et. Wb.* 2. 33, with refs. and history of discussion). Equally is the connection with Gk. ἀμύλω, Lat. *mulgeo*, ChSl. *mlъza*, etc. 'milk', abandoned, and a new relationship, possibly within the Slavic itself, sought.

A. Brückner in KZ 45. 104f, and SEJP 340, derives the word from a Prim. Slav. \**melko*, \**molko* 'a name for all sorts of liquids'. Both by Brückner in the above places, and by Endzelin in *Latviešu Valodas Vardnīca* 2. 558, connection is made with Lith. *malkas* 'gulp, a single draught in drinking', and Lett. *malks* 'gulp, draught'. Similarly Walde-Pokorny 2. 297, with refs.

Phonetically, the above connections are, in all probability, correct; however, from the semantic point of view they are not satisfactory. For Brückner it was necessary to set up for the assumed Prim. Slav. forms: \**melko*, \**molko*, the meaning 'moisture, fluid' or 'name for all sorts of liquids, in order to derive from the same source such semantic strangers as: ChSl. *mlěko*, Russ. *moloko*, etc. 'milk', Pol. *mlako*, *mloko* 'marsh, swamp', *mlokocina*, *mlokita* 'osier, water-willow', ORuss. *molokita* 'swamp', Boh., SCr. Slov. *mlaka* 'plash, puddle, pool', etc., and Lith. *maĩkas*, Lett. *malks* 'gulp, draught'.

Unfortunately, in the semantic evolution of *moisture* or *liquid in general* into such a specific liquid as *milk*, as assumed by Brückner, the distance is really great, and there is hardly any notion that could not go back to the same source. With the same good reason *humidity* or *liquid in general* may have developed into *ocean*, *sea*, *river*, *brook*, *cloud*, *fog*, *steam*, *blood*, *dew*, *grape-juice*, etc., for they all are *moist* or *wet*, and *milk* does not offer in this case any special characteristic, that would warrant a restriction of meaning in its own behalf, in preference to the others mentioned above.

After abandoning the idea of a semantic change: *moisture*, *fluid*:

*milk, swamp, gulp*, etc., can we think of a more satisfactory connection, one which will reveal the semantic content of ChSl *mlěko*, Russ. *moloko*, etc. 'milk', explain its relationship to the other words of the group, and allow comparison with some elements outside of the Balto-Slavic?

The nearest semantic cognates of the above words are, in my opinion, Bulg. *mlākъ*, SCr. *mlāk*, Slov. *mlačēn*, etc. 'tepid, lukewarm', etc. A direct proof that this term is responsible for the forms, meaning: 'plash, puddle, pool', is furnished by SCr. *mlākva* 'a pond or pool that does not freeze in winter', representing a derivative from *mlāk* 'tepid, lukewarm', contaminated by *lōkva* 'puddle, pool'. Applied to weather, the same adjective gives SCr. *mlākajica* 'aer mitis, dulcis, tepidus; temporis tranquillitas', Slov. *mlačno vreme* 'soft weather', etc., and to human characters, SCr. *mlākonja* 'weary, indolent man, weakling', *mlākav* 'drowsy, weary, faint, lazy', etc. This reveals in the forms *mlāk*, *mlačēn* the presence of meanings: 'tepid, soft, gentle, sweet', i.e. the idea of *softness*, as reflected through different senses, and therefore assuming a variety of meanings.

With this we have equated *mlāk*, in form and meaning, with Gk. *μαλακός* 'soft, gentle, mild, fair', and in bad sense 'yielding, weak, cowardly, etc.' Applied to water or soil, it will give the meaning of 'swamp, marshes' (so: *μαλακά ὕδατα*, as in Hipp., *Aer.* 280; cf. Aesch., *Fr.* 192, Plato, *Tim.* 59 D; so of soil Aesch., *Ag.* 95), which is exactly the case of OR *molokita* 'swamp', Pol. *mlako. młoko*. 'swamp, marsh', Pol. *mlōkicina, młokita* 'osier, water-willow' (i.e. willow which grows in, or along the swamps), and may be that of the Bulg., SCr., Slov., Bohem. *mlaka* 'plash, puddle, pool', unless these latter come directly from the idea 'lukewarm, tepid', expressed by the adjective *mlāk*.

From which of these notions shall we derive the idea of milk, from *lukewarm*, or *soft, mild*? Taking the word as a purely Slavic formation, *lukewarm* is all we need, as the milk is actually *lukewarm*, when milked, or drunk at milking, or when sucked from the mother's breast. Thus *\*melko* or *\*molko* would appear in Primitive Slavic as a modifier to *\*piwo, \*pitije*, etc. 'drink', giving the compound: 'a lukewarm drink'. For the loss of the substantive and the retention of meaning of the whole compound by the substantivized adjective, cf. Serbian *slatko* 'jam', literally: 'sweet', after it parted company with: *voc'e* 'fruit', *varivo* 'confiture', or the like.

In order to attach the Tokharian A *malke* 'milk', *malkver* 'milk; literally: 'milk water' to the group, it is preferable, however, to relate it to the wider idea 'soft, mild', in which case it meant 'soft, mild

drink', and probably 'sweet drink', in distinction from intoxicating drinks, pure water, or undrinkable fluids. The adjectival character of Prim. Slav. \**melko*, \**molko*, clear in itself in Slavic, is confirmed through comparison with Gk. μαλακός 'soft, etc.', and especially with Tokh. A *markver*, in which the original compound appears with the logical force of the adjective 'mild, sweet', meaning literally: 'sweet water, mild drink', and not *milk water*, as suggested by O. Schrader<sup>2</sup> 2. 64.

The idea *milk*, as originated from 'mild, sweet drink', found in Slavic additional support, when the adjective \**melk-*, \**molk-* 'soft, mild' took the meaning 'tepid, lukewarm' (in the sense: 'gently, mildly warm', i.e. the idea of 'softness, gentleness', applied to the sensation of heat). An essential characteristic was added to the complex, and thus re-enforced, it resisted more vigorously the obliteration of the fundamental idea than the Lith. *malkas*, Lett. *malks* 'gulp, single draught of a drink', where 'mild drink, sweet drink' was given up for a 'long drink', and this for the 'length of a drink', therefore: 'a gulp, single draught of a drink', evidently because the drinks were: *good, sweet, gentle, appetizing*.

Prior to metathesis, both forms \**melko* and \**molko* were common in Slavic. After the transposition of liquids, \**melko* became in Southern and Western Slavic restricted to the sense of *milk*, while the Eastern group adopted for the same notion the form \**molko*. The meaning 'soft, tepid' is still apparent in OR *molokita*, Pol. *mloko*, *mlako* 'swamp, marsh', etc., and survives in Bulg., SCr. *mlak*, Slov. *mlačén* 'lukewarm, tepid'. It went out of use in Russian, where it fell together in form with *moloko* 'milk', while in Southern Slavic both notions were preserved intact, due to the semantic differentiation of grades, following metathesis.

## A BIBLIOGRAPHY OF AMERICAN PRONUNCIATION 1888-1928

HANS KURATH

OHIO STATE UNIVERSITY

This bibliography was compiled primarily for the purpose of making the rather scattered bits of more or less reliable information regarding the pronunciation of English in the various parts of the United States more readily accessible, but also to show how little actual work has been done and how much remains to be done before we shall have even an imperfect picture of American pronunciation. Incidentally the compiler could point out that our most widely used dictionaries have made little effort to utilize what work has been done and persist in presenting a largely fictitious 'correct pronunciation'.

It is hoped that all the reliable discussions of pronunciation, all phonetic texts rendering the actual pronunciation of an individual, and all the phonograph records of American speech have been listed. Word-lists containing notes on pronunciation have also been included, especially if no other material is available for any particular section.

A glance at the attached map will disclose the regions of which we have some knowledge and those that have not been studied at all. With the exception of Nebraska, the country to the west of the states bordering on the Mississippi is entirely unexplored, and Indiana, Illinois, Michigan, Iowa, Wisconsin, and Minnesota are no better off.

### I. GENERAL WORKS ON PRONUNCIATION

- G. P. Krapp, *The English Language in America*. Pp. xiii + 377 + 355. New York, 1925. (The Century Company for the Modern Language Association of America.) Especially I, 3-67: The Mother Tongue; I, 225-37: Literary Dialects; I, 351-377: American Dictionaries; II, 3-246: Pronunciation; II, 247-254: Unstressed Syllables.—Sound in its fundamental conceptions. Very important for the history of American pronunciation. See review by H. Kurath in *LANGUAGE* 3. 131-9.
- G. P. Krapp, *The Pronunciation of Standard English in America*. Pp. xv + 235. New York, 1919 (Oxford University Press).

- J. S. Kenyon, *American Pronunciation*. A Textbook of Phonetics for Students of English. Pp. v + 200. Ann Arbor, 1924 (George Wahr).—The best account of American pronunciation. Kenyon describes with care and skill the speech of the Western Reserve of Ohio (which is his own speech). However, variants current in other parts of the West, and the Eastern and Southern type of speech are also treated. Historical problems are taken up here and there. Reviews: W. A. Read, *JEPG* 24. 270-3; M. B. Ruud, *American Speech* 1. 49-53; M. E. deWitt, *AS* 1. 174 (Kenyon's reply: *AS* 2. 500).
- C. H. Grandgent, 'English in America'. *Neuere Sprachen* 2. 443-67 (1895).—Based largely on a survey, the results of which were published in volumes 6, 8, and 9 of *MLN*.
- C. H. Grandgent, *German and English Sounds*. Pp. vi + 42, with diagrams. Boston, 1892 (Ginn and Co.).
- H. Kurath, *American Pronunciation*. S. P. E. Tract No. xxx. Pp. 17. Oxford, 1928 (Clarendon Press). A brief summary of the chief characteristics of Western, Eastern, and Southern pronunciation. Review, with valuable comments on Southern pron., by W. A. Read, *Engl. Studien* 63. 408-13.
- H. Kurath, 'The Origin of the Dialectal Differences in Spoken American English'. *Mod. Phil.* 25. 385-95.—An attempt to link speech differences with diverse elements in the population of the United States.
- Margarete E. De Witt, *EuphonEnglish in America*. New York, 1924 (E. P. Dutton and Co.). Wrong outlook. Advocates the British standard of pronunciation for use in America, and deals only with the speech of certain Easterners and odd Westerners who strive to master British pronunciation (i.e. World Standard English, so-called).

## II. DICTIONARIES

A pronouncing dictionary doing justice to our present state of knowledge is yet to be written. The more widely used dictionaries are especially faulty.

- R. M. Pierce, *A Dictionary of Hard Words*. New York, 1910.—The geographic variants and the peculiarities of the various levels of American speech are more carefully, tho not systematically, recorded by Pierce than in any other dictionary.



G. Hempl and P. Passy, *International French-English and English-French Dictionary*. New York, 1903. (Hinds, Noble and Eldredge.)

—G. Hempl records American pronunciation. His practice is stated in the Preface, p. 5: 'Individual and local variants are rarely given and, when given at all, are in separate title places. Nor is any heed taken of the modification which words undergo when used in types of discourse different from the normal type. On the other hand, considerable attention has been devoted to certain fundamental variants concomitant with changes of meaning or stress, variants which each individual uses according as he uses a word with this or that meaning, in this or that manner or position or with this or that degree of stress.'

*The Funk and Wagnalls Standard Dictionaries*.—No attempt is made to record the geographic variants in cultivated speech (not to mention colloquial speech), altho 'where two different pronunciations have an approximately equal weight of authority [!], both are given, as in the case of such words as *advertisement*, *herb*, *illustrate*, *lever*, *vase*, etc.' (*The Practical Standard Dictionary of the English Language*, New York, 1927, page iv.) In the Introduction some vague (and misleading) statements are made regarding dialectal variants, for instance on page VIII: 'In some parts of the United States the o has almost completely lost its rounding, so that *hot*, *not*, *pop* are usually heard as [hat, nat, pap].'

*The Webster Dictionaries*.—Unscientific key. A strong Eastern bias, no doubt inherited from the older editions, is evident. Geographic variants of cultivated speech are not recorded. The statements in the 'Guide to Pronunciation' contain such astonishing assertions as: 'The sound [i.e. 'short o'] is formed with nearly the same tongue position as ô [as in *lord*, or *awe*], but in its pronunciation it is laxer.' Or: 'After *d*, *l*, *s*, *t*, and *th*, as in *duke*, *lute*, *suit*, *tune*, *enthusiasm*, the *y* sound comes in with more difficulty, and the initial element usually becomes *i*, but is not, however, properly entirely omitted.' Or again: 'In American usage, *ä* occurs most often before *r*. In *calf*, *half*, *salve*, etc., *ä* [a] is the generally accepted sound, though *ä* [a], and even *ä* [æ], are also common in such words.' (*Webster's Collegiate Dictionary*. Springfield, 1926.) Evidently the editors of the Webster Dictionaries have kept aloof from the scientific work that has been done since 1890.

H. E. Palmer, J. V. Martin, and F. G. Blanchard, *A Dictionary of English Pronunciation with American Variants*. New York, 1927

(D. Appleton and Co.).—Strong British bias. The treatment of the 'American Variants' is poor and often misleading. One finds such statements as this (p. xxxviii): 'Thus *half, brass, ask, nasty*, etc., are transcribed with the symbol [a'], indicating that the vowel varies between [a'] and [æ]. . . . The most general value given to this phone in America is probably that of 'cardinal' [a].'

Review: H. Kurath, *English Journal* 16. 743-5.

### III. WORKS DEALING WITH THE MAIN TYPES OF AMERICAN PRONUNCIATION EASTERN:

C. H. Grandgent, *Old and New: Fashion and the Broad A*, 25-30; *New England Pronunciation*, 121-49. Cambridge, 1920 (Harvard Univ. Press).—Accurate and well written.

### SOUTHERN:

W. A. Read, *The Vowel System of the Southern United States*. *Englische Studien* 41. 70-8 (1909).

———, *Some Variant Pronunciations in the New South*. *DN* 3. 497-536.

———, *The Southern R*. Louisiana State University Bulletin, February 1910.

### WESTERN:

J. S. Kenyon, *American Pronunciation*. Ann Arbor, 1920 (G. Wahr).

### IV. SURVEYS OF SPECIAL FEATURES

C. H. Grandgent, 'Notes on American Pronunciation,' *MLN* 6. 82-7.

———, 'More Notes on American Pronunciation,' *MLN* 6. 458-67 (1891).

———, 'American Pronunciation Again,' *MLN* 8. 273-82 (1893).

———, 'Letter to Editor: Cheerful,' *MLN* 9. 190-1.

———, 'Unaccented I', *DN* 1. 319-23.

———, 'Teat-yure (did you, this year, etc.)', *MLN* 9. 272-5.

All based on from 150 to 200 responses received to a circular; N. Y., Mass., Va., Pa., O., Maine, and Conn. are best represented. Only cultivated speech was investigated.

———, 'Warmph', *PMLA* 11. 63-75.

———, 'The Dog's Letter', in *Old and New*, Cambridge, 1920.

G. Hemphill, 'Unstressed wh', *MLN* 6. 310.

———, 'Wh in America', *MLN* 6. 437.

———, 'Grease and greasy', *DN* 1. 438-44.

——, Circular on American dialect speech sent out in 1894 (results not published). *MLN* 9. 310-13.

E. S. Sheldon, 'Wh in America', *MLN* 6. 378-82.

J. S. Kenyon, 'Some Notes on American R', *AS* 1. 329-38.

W. A. Read, 'Some Phases of American Pronunciation', *JEGP* 22. 217-44.



FIG. 1

#### V. WORKS DEALING WITH SPECIFIC LOCALITIES

##### KEY

- (1) \* marks articles and notes dealing entirely or primarily with pronunciation.
- (2) □ marks texts in phonetic notation.
- (3) ○ marks phonograph records of American speech. Records 21, 22, 32, and 61 were made by the Columbia Phonograph Company under the direction of Professor H. M. Ayres, of Columbia University; all others by the Victor Company under the direction of Dr. Cabell Greet, of Barnard College.
- (4) Word-lists containing notes on pronunciation are unmarked.

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- \*1. E. S. Sheldon, 'A New Englander's English', *DN* 1. 33-42.
- 2. C. H. Grandgent, 'English Sentences in American Mouths: Maine', *DN* 1. 198-9.
- 3. Ellsworth, Maine.
  - 4. J. W. Carr and G. D. Chase, 'A Wordlist from Eastern Maine', *DN* 3. 239-51.
- 5. Lancaster, New Hampshire.
  - 6. J. W. Carr, 'A Wordlist from Hampstead, S.E. New Hampshire', *DN* 3. 179-204.
- \*7. M. L. Hanley, 'Observations on the Broad A', *DN* 5. 347-50.
- \*8. C. H. Grandgent, 'From Franklin to Lowell', *PMLA* 14. 207-39.
- \*9. A. Orbeck, *Early New England Pronunciation*. Ann Arbor, 1927 (G. Wahr).
- \*10. C. H. Grandgent, '*Haf* and *Hæf*', *DN* 1. 269-74.
- 11. C. H. Grandgent, 'English Sentences in American Mouths: Massachusetts', *DN* 1. 199-200.
- 12. C. H. Grandgent, 'English in America.' *Phonetic Texts* (Mass.), *Neuere Sprachen* 2. 520-8 (1894).
- 13. C. H. Grandgent, 'Weak Words', *Maître Phonétique*, July 1895, 127-8.
- 14. Neighborhood of Boston, Mass.
- 15. Newburyport, Mass.
  - 16. G. P. Chase, 'Cape Cod Dialect', *DN* 2. 289-303; 423-9.
- 17. Meriden, Conn.
- 18. C. H. Grandgent, 'English Sentences in American Mouths: New York City', *DN* 1. 200-1.
- \*19. E. H. Babbitt, 'The Language of the Lower Classes in New York City and Vicinity', *DN* 1. 457-64.
- 20. New York City (1) and (2).
- 21. New York City (Columbia record).
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- \*24. S. Primer, 'The Pronunciation of Fredericksburg, Va.', *PMLA* 5. 185-99.
- \*25. C. H. Grandgent, '*Haf* and *Hæf*' (Eastern Virginia), *DN* 1. 274-5.
- 26. B. W. Green, *Word-book of Virginia Folk-speech*, Richmond, 1899.

- \*27. E. F. Shewmake, *English Pronunciation in Virginia*, University of Virginia dissertation (1920), 1927.
- 28. Bertrand, Va.
- 29. L. R. Dingus, 'A Word-list from Virginia (Clinch Valley, Scott County)', *DN* 4. 177-93.
- 30. L. R. Dingus, 'Appalachian Mountain Words', *DN* 5. 468-71.
- 31. H. Kephart, 'A Wordlist from the Mountains of Western North Carolina', *DN* 4. 407-19.
- 32. North Carolina (Columbia record).
- 33. Leister, N. C.
- \*34. S. Primer, 'Charleston Provincialisms', *Phonetische Studien* 1. 227-44 (1888).
- \*□35. E. K. Kane, 'The Negro Dialects along the Savannah River', *DN* 5. 354-67.
- 36. Columbia, S. C.
- 37. Charleston, S. C.
- 38. Goose Creek (Gullah), S. C.
- 39. J. P. Fruit, 'Uncle Remus in Phonetic Spelling', *DN* 1. 196-8.
- 40. Macon, Ga.
- \*41. L. W. Payne, 'A Word-list from East Alabama', *DN* 3. 279-328; 343-91; pp. 279-85 deal with pronunciation.
- 42. J. W. Pearce, 'Notes from Louisiana', *DN* 1. 69-72.
- \*□43. L. S. Menger, 'A Note on American Pronunciation', *Maître Phonétique*, Dec. 1893, 168-71.
- \*44. M. L. Hanley, 'The Texas L', *DN* 5. 247.
- 45. Lamar County, Texas.
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- 47. Stony, Texas.
- 48. Oklahoma.
- 49. J. W. Carr, 'A List of Words from Northwestern Arkansas', *DN* 2. 416-22; *DN* 3. 68-103, esp. 101-3; 124-165; 392-406.
- \*50. V. Randolph, 'Pronunciation in the Ozark Mountains', *AS* 3. 401-7.
- 51. C. H. Grandgent, 'English Sentences in American Mouths: St. Louis, Mo.', *DN* 1. 203-4.
- 52. R. Weeks, 'A Phonetic Alphabet for English', *Maître Phonétique*, Feb. 1906, 32-3.
- 53. Lincoln County, Mo.
- 54. D. S. Crumb, 'Dialect of Southeastern Missouri', *DN* 2. 304-37.
- 55. J. L. B. Taylor, 'Snake County Talk', *DN* 5. 197-225.



- 56. W. O. Rice and G. Hempl, 'The Pioneer Dialect of Southeastern Illinois', *DN* 2. 225-49.
- 57. O. W. Hanley, 'Dialect Words from Southern Indiana', *DN* 3. 113-23.
- 58. C. H. Grandgent, 'English Sentences in American Mouths: Kentucky', *DN* 1. 203.
- \*59. O. F. Emerson, 'The Ithaca (N. Y.) Dialect', *DN* 1. 85-173.
- \*60. B. S. Monroe, 'The Pronunciation of English in the State of New York', *DN* 1. 445-56.
- 61. Neighborhood of New York City (Columbia Record).
- 62. Colton, Northern New York State.
- 63. Kitchener, Southern Ontario.
- 64. North Philadelphia, Pa.
- 65. Lancaster County, Pa.
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- 69. J. S. Kenyon, 'Western Reserve' (Word-list, with phonetic notation), *DN* 4. 386-404.
- 70. Rockbridge, Central Ohio.
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## THE WORD AND THE SENTENCE

W. L. GRAFF

MCGILL UNIVERSITY

[Effort to define these terms and their relation to each other. Stress is laid on the fact that each has both a phonetic and a semantic aspect, neither of which must be unduly emphasized.]

The definition of the word has caused a great deal of trouble to both psychologist and linguist. In spite of the numerous attempts to locate it properly among other linguistic facts, an examination of what has been written about it leaves the reader with an uncomfortable feeling of vagueness. The trouble, it seems to me, arises from the following outstanding mistakes: (1) either the phonetic or the semantic feature is given undue importance to the detriment of the one, though complex, semanto-phonetic combination; (2) the relationship of the word to the sentence and vice-versa is misrepresented; (3) the character of the word is often identified with its quantitative extension, or at least character and quantity are not strictly kept apart; (4) evolutionary facts of language are not distinctly separated from the static system.

Let us first state that we are not concerned here with the problem of the origin of the word. The question how the word has come to be is just as immaterial for the understanding of what it is as knowing how primitive man built his first shelter is unnecessary in describing a modern apartment house. We may note, however, that while history is unable to give us the least information concerning this point, the principles of social psychology plead for the priority of the sentence to the word.

From the outset we may also dispose of the fourth mistake mentioned. Although it is undoubtedly true that language changes continually, it is no less evident that these changes are only noticeable in retrospect. At any given period the speaking community is conscious of using the same language. Only linguists are aware of its ephemeral character; but their influence is comparatively small. The language-making crowd work with linguistic material which to all intents and purposes they feel to be stationary. The changes for which they are responsible are perfectly unconscious and unintentional. For them the word has

a current value. And indeed, but for that relative stability, language would be a chaos unfit for social communication. When we trace a word back to what it was five hundred years ago, each link really represents a relatively static word current at a certain period. The historical interpretation is the observer's privilege. Hence the definition of the word can only apply to a relatively static entity. The introduction of the historical aspect inevitably obscures the issue.

The first requirement, then, in order to have a word is some articulate sound or sounds. In this sense (that is, as a mere shorthand term for the phonetic aspect of the word), it might be justifiable to speak of a 'phonetic word',<sup>1</sup> if there were no other reasons for avoiding such terminology.<sup>2</sup> But the question as to which and how many sounds are required and sufficient has unfavourably affected many a discussion of the subject. It seems appropriate, therefore, to emphasize the fact that neither a particular quantity nor a particular quality of sound is essential to the word. A small house built of wood or brick is a house just as well as a large one of stone or concrete. Both the number and the sort of sounds required for a word are determined by external circumstances and conditions.

Historical grammar and etymology explain a good deal in this respect. Factors of importance are the phonetic material which a language has at its disposal, the habits of combination and reference, of differentiation and unification, of isolation and demarcation prevailing in a language at a given time.

The verbal material consists of sounds and phonetic combinations. But each language operates with a comparatively small number of sounds, which are moreover systematically grouped according to their articulatory, auditory, and psychologically contextual properties. Phonetic combinations may enter wholesale into the formation of words; but again their number as well as their kind is peculiar to each language. Like sounds they are grouped and systematized in the minds of the speakers. Sounds and sound-combinations are combined with other sounds and other combinations in a way determined by certain general and specific habits. If the latter are dependent upon general motor and acoustic conditions, they are common to all languages. Thus, a succession of syllabic and non-syllabic sounds is necessary in any word of a certain phonetic extension. But it is a result of specific combining

<sup>1</sup> Cf. Vendryes, *Language*, tr. by Radin 56 f.; Scripture (Karsten), *Elements of Experimental Phonetics*, 127 (1904).

<sup>2</sup> See elsewhere in this article.

habits that in English [pn, ps, st, sp, kn, gn] are never at the beginning of a syllable; that in Italian consonantal clusters are very rare and a consonant is hardly ever at the end of a word; that other languages favour consonantal accumulations, etc. Similarly the phonetic combination *-able* [əbl] in English can only be made a constitutive element of a word under certain conditions. The habits of symbolization and reference also help in determining the phonetic character of the word. This is particularly obvious in the case of onomatopoeias and primitive reduplications. The facts that in English symbolization is frequently obtained through borrowing and that in German its ways rather lead to compounds and derivations, determine the acoustic and quantitative character of many an English and German word. Moreover the differentiation of sounds within the word is largely governed by special habits. In German [p] is seldom, in English it is often used as a differentiating sound of [b]. (Cp. the English words *bat*, *pad*, *bad*, *pat*, which sound much alike to speakers of certain High German dialects.) But in addition, words are phonetically differentiated from other words by certain means of parallelism and contrast. In this manner they, too, are systematically grouped. Thus the sound-combination *cut* [kʌt] is contrasted with all other monosyllabic stems of the same type such as *boot*, *eat*, *hut*, *but*, etc., from which it is distinguished in its acoustic and articulatory properties. The phonetic extension of the word is partly defined by such other forms as *cutting* [kʌt-ɪp], *cutter* [kʌt-ə], *cuts* [kʌt-s], etc. If I substitute [g] for [k], or [æ] for [ʌ], or [d] for [t], the change is not only immediately noticed, but vigorously resisted by the emergence of such phonetic symbols as *gut* [gʌt], *cat* [kæt], *cud* [kʌd]. To be sure, the systematization of words is less strict than that of sounds or morphological elements. If in the given word I replaced [t] by [θ], or [k] by [t], the disturbance would no doubt be observed, but tolerated with considerably greater complacency. Whatever resistance would then be felt would come from the sound-system rather than from the word-system. In spite of this restriction, however, the phonetic word-symbol is in a large measure defined as to its extension and quality, because it is surrounded by other words in the system. As to the habits of unification they find their primary expression in accentual conditions, the influence of which upon sound-quality and word-quantity is universally recognized. Finally, the defining effect of the prevailing habits of isolation is very evident if we compare so-called synthetic languages with analytic ones. In the former a greater number of sound-combinations are isolated and grouped as radical and formative elements; in

the latter the process of isolation mainly enriches the ready-made vocabulary. There the whole words that enter into the sentence are few, here the sentence absorbs many. This, of course, entails different habits of demarcation: within the same language 'morphological' words are likely to be longer than those which are the immediate result of isolation.

If it is true that the phonetic quality and quantity of a word are merely determined by external circumstances, it is plain that they can change in any direction according to the changes of these circumstances. But a reduction of sound to zero is incompatible with the concept of the word. The expression 'semantic word'<sup>3</sup> can only be a shorthand term for the semantic aspect of the word. A definition that neglects the phonetic feature, is necessarily inadequate. This does not imply a belief in a subsisting essence or in subsisting essential properties of the word, nor in a correspondingly intrinsic relation of the symbol 'word' to such essence or properties; it only means that the sound-combination 'word' is the symbol for a compound generalized reference which is the result of a considerable number of referential experiences, a common feature of which is 'some articulate sound or sounds.' It is this common feature which belongs in a definition of the word, while the changing ones of phonetic quantity and quality are temporarily cancelled. The desire for an inclusion of the latter features in the definition could only be met by an elaborate description of the above-mentioned and possibly other determinative factors. But if we anticipate our conclusion that the word is primarily a systematic entity, we may add that its phonetic part is relatively defined in every individual case. Hence the above-mentioned common feature may be expanded as follows: 'some definite articulate sound or sounds'.<sup>4</sup>

At first blush it would seem superfluous to say that sounds without standing for or referring to something do not constitute what we term a word. But there are good reasons for insisting upon this point. Not only does popular speech freely identify the word with its sounds, but teachers of spelling and pronunciation, nay even linguistic scholars often speak of words as if they were mere phonetic entities. Especially historical linguists, with their dependence upon written documents and

<sup>3</sup> Cf., e.g., L. Bloomfield, *An Introduction to the study of language* 99, 103 (1914).

<sup>4</sup> This is admitted by Meillet, at least in regard to the IE morphological word. See his *Étude comparat. des langues indo-europ.* 106-7. His restriction is merely due to the fact that he does not stop to consider the systematic character of the simple word.



their desire for tangible and clear-cut data, are liable to study sounds instead of words. Etymologizing is only too often nothing but an application of phonetic laws or formulae. It is forgotten that such work is mere pioneer work, destined to clear the way for more comprehensive solutions. That is why many historical phonetic studies are so dead and devoid of human interest. On the other hand semanticists often look at so-called meanings as if they were realities by themselves, not symbolized entities both genetically and statically bound to their symbols. Is it to be wondered at that linguist and psychologist are so often at variance? It is for these reasons, that is, because of the danger of strengthening a one-sided and erroneous tendency, that the expressions 'phonetic word' and 'semantic word' should be removed from our linguistic vocabulary.<sup>5</sup> But the relation of sounds to what they stand for or refer to is not an essential or necessary one. Generally speaking, the sound is neither causatively produced by any reference, nor does the latter call for any specific sound. The relationship between the two is of a purely contextual character. Certain sounds have on various occasions been found to be used in context with a certain semantic value, so that gradually one has become the sign or the symbol of the other. Such contexts may, of course, present many degrees of immediacy or complexity. This leads us to inquire what kind of 'meaning' must be contextually related to corresponding sound(s) in order to have a word.<sup>6</sup>

Concerning language in general, it is doubtless possible for sounds to be in an immediate sign-context with a certain attitude of the speaker and to be directly evocative of a similar attitude in the listener. This attitude may be primarily expressive, for instance of joy; or communicative, for instance of an order; or both expressive and communicative at the same time. If however, we confine our study to the single word, it seems hardly possible to find an instance where all the 'meaning' would be emotive. Some reference will be found to be present, either exclusively or combined with emotive colouring.<sup>7</sup> So-called nursery-words as well as primitive action-words, which may lack all referential value, are really sentences, not single words.

The reference or references with which a sound or sounds are in con-

<sup>5</sup> Cf. also L. Weisgerber, 'Vorschläge zur Methode und Terminologie der Wortforschung,' *Idg. Forschungen* 46. 305-25 (1920).

<sup>6</sup> For much of the terminology used here see Ogden and Richards, *The Meaning of Meaning*, New York, 1923.<sup>1</sup>

<sup>7</sup> Cf. elsewhere in this article.

text, may be obtained more or less directly as a result of very few experiences. This happens with proper names or with such a word as 'sun.' For common nouns whose referent is a substantial object (e.g., *house*, *tree*) a larger number of experiences are required in order to obtain a symbolized reference. The complication increases when varied groupings of experiences have to take place so that only certain of their common elements survive in isolation, while all the differentiating features are cancelled (e.g., *offspring*); or when part of one context is taken hold of by and embedded in another context, as for instance in compounds (*school-boy*) and in metaphors (*chairman*); or when non-substantial references are abstracted from a considerable variety of different contexts or groups of contexts, as happens with words of the type of *truth*, *greatness*, *religion*, or with adjectives, prepositions, verbs, etc.

It is to be observed that in any single word we are in the presence of some degree of abstraction.<sup>8</sup> Even the symbols *Peter* and *Paul* denote specifically only when used in a properly situated speech-context; part of their connotation may be temporarily cancelled in any given piece of speech. Word-references, however concrete, are of some complexity which needs the sentence for its reduction to unequivocal simplicity. Otherwise they are not really words but mere names, not translatable but only transferable wholesale from one language to another.<sup>9</sup> Most proper names are actually more than mere names. The symbol *Napoleon* symbolizes a very complex reference almost invariably complicated with emotive contexts. The reference symbolized by *house* is only obtained after the cancellation of the differentiating features of various contextual experiences, each linking the symbol to a specified reference. The abstraction in the case of a word like *offspring* is evident, since it may stand for a son as well as for a grandson, etc. Upon the abstracted character of the other types of references it is needless to insist. But abstraction means the provisional disregarding of differences and the retention of common features alone. At any time, however, some of the differences may be included in a specified reference by means of the sentence. Abstraction, therefore, implies ambiguity or rather polysemy, and it seems that the latter property is a common characteristic of the single word. This becomes the more evident, if we consider that the word-symbol isolated from all sentence-contexts may symbolize at different levels of reference or interpretation. The sentence has at its disposal all kinds of possible expansions and other

<sup>8</sup> Cf. L. Weisgerber, 314.

<sup>9</sup> Cf. Ammann, H., *Die menschliche Rede* 1.66 f. (1925).

means of locating the reference in all relevant respects. The single word has not, except to a certain degree where the linguistic system allows of previous systematic specification by way of word-composition or otherwise (cp. German *Mann* and *Kaufmann*). A product of the latter type, however, still is a single word, because the more specific location of the reference is obtained by a systematic, not by a free procedure, and since a further expansion or situation remains necessary for relevant communicative purposes. The isolated word-symbol may even stand for more than one referent and yet be felt to be the same word. Thus, in English, *wood* may stand for the same referents as the two German symbols *Holz* and *Wald*. The criterion of differentiation between isolated word-symbols does not coincide with that between sentence-symbols.<sup>10</sup> Within the sentence one symbol can only stand for one referent,<sup>11</sup> but outside of connected speech one symbol standing for several referents will be called the same word, if the speaking community is still aware of the process by which one referent has been substituted for another. That is why for instance *ball* (French *la balle*) and *ball* (French *le bal*), even when considered in their isolation, are two different words. Finally, the polysemy of the single word is intimately connected with the facts that a symbolic reference-context may be complicated with various emotive sign-contexts, and that metaphorical complications may be present in any degree.

And yet the polysemous character of the single word is limited. But again, this limitation is conditioned by external factors. Semantic history has evolved the word-references with which we now operate. In English the symbol *house* may symbolize a reference to many different kinds of houses; metaphorically its reference may be so generalized as to refer to many more other things; but it can hardly ever have the same reference as, let us say, *bread*, or *dust*. Thus, the referential habits at a given time in a given community define the references made, even when the referents are the same as those of other periods or other communities. Compare the German word *Land* with English *land*, the French *contrée* with the English *country*, Modern English *flesh* with AS *flæsc*, etc. That entirely unrelated referents give rise to different references is self-evident. This gives the study of single words a high value for the understanding of cultural conditions. Moreover, referential differentiation and grouping are determinative of word-meaning. Like the phonetic symbol the symbolized reference is grouped in sys-

<sup>10</sup> Cf. H. Ammann, 1.46.

<sup>11</sup> Cf. Ogden and Richards 187 f.

tematic contexts. The reference of the word *house* is to a great extent defined by the references of such symbols as *hut*, *cottage*, *palace*, *bungalow*, etc., which cluster together, partly overlapping, partly defining each other. In English the pronoun *we* presents a referential aspect of plurality or 'more than one', because the only contrasting form is the singular. If the English language had a dual, the plural *we* would imply the referential aspect of 'more than two'. The fact that *we* is only the subject and predicate form is partly due to the existence of the contrasting object form *us*. If this were lacking, as is the case in French, the referential field of *we* would ipso facto be changed. If we had a special polite form for the speaker's person, as is the case in Basque, *we* would lose part of its reference-complex. English *I* does not symbolize the same reference as French *je*, which can only be subject, not predicate. The mere loss of *thou* has enriched the reference of *you*. Again, the habits of referential isolation will have a determining effect upon meaning. Primitive people isolate comparatively few references, and where they do, the isolation is not so complete as it would be in civilized communities. The result is that polysemy and consequently ambiguity are not so pronounced in their single words. But a certain degree of isolation and abstraction is necessary to any word; otherwise the same word could not be used in different sentences with special references, and every sentence could consist only of one word, either simple or obtained by a previous systematic combination of radical and formative elements. In that case there would not be any real words, but only sentences.<sup>12</sup> And so we see that the referential range of the single word is determined by many circumstances, but that neither the kind nor the degree of complexity of the reference is a common referential element of the symbol *word*. We may conclude, then, that the single word consists of 'some definite articulate sound or sounds in a polysemous context with some complex but limited reference or references'.

In the preceding paragraphs we have repeatedly mentioned the systematic grouping of such linguistic elements as the sounds, the radical and non-radical parts, and even the words. I believe that this distinction between speech and system should be insisted upon in order to arrive at a definition of the word as an isolated entity. It was as a reaction against the overemphasis laid upon historical facts of language as transmitted by literary documents that modern linguistics turned its attention to the actually spoken word. Language, it was maintained,

<sup>12</sup> Cf. H. Ammann 1.29, 30, 44f.



is not a thing but an activity. Speech is the form of language catexochen. Unfortunately this reaction, like many others, went too far. It resulted in blurring a fundamental distinction without which the study of language is doomed to inextricable confusion. Speech is a psycho-physical activity, the system a purely psychic grouping of mentally deposited data abstracted from speech.<sup>13</sup> Historically speech precedes the system; without the former the latter could not come into existence or develop. But once it is there, the system is decidedly distinct from what it owes its existence to. Moreover, in its turn it exerts its influence upon speech. In order to become a language speech cannot possibly do without the system. That which gives consistency and coherence to language is the system. Without the latter it is hard to see how speech could become a means of continuous social intercourse. I can know and to a high degree understand the system of a language and yet be unable to speak or understand the language itself. Common speech elements are isolated and embedded in systematic psychological contexts whose characteristic it is to be stable by nature. Whereas in speech both the symbols and the references are temporarily defined and specified by an ephemeral context, systematic contexts result from an abstraction of the common elements of several or many speech-experiences, and are mnemonic. Speech-contexts are formed for the purpose of momentary expression or communication; the purpose of system-contexts is to group, to combine, to record, and to store. Single sounds never escape a thorough systematization in any language.<sup>14</sup> A systematic sound-context consists of two or more different sound-sensations which define each other in a great variety of ways. Thus, for instance, *p* is brought into relation with *b* in some such contexts as '*p* is not *b*' or '*p*:*i* = *b*:*d* = *f*:*v*', or '*p* is close to *b*', or '*p* is very distant from *b*', etc. Because single sounds by themselves have no referential meaning and because their quantitative extension is reduced to a minimum, their contextual groups are homogeneous and comparatively simple; that is, a sound is only in systematic contexts with one or more other sounds, and its entire indivisible entity is systematized. That is why the phonetic system of a language at any given period is very strict and closed; it is rare for a strange sound to find its way into it. But where semantic elements are connected with sounds the systematic grouping may affect many different parts of the combination and leave others unaffected.

<sup>13</sup> Cf. F. de Saussure, *Cours de Linguistique générale* 170 f. (1922); also H. J. Pos, *Zur Logik der Sprachwissenschaft* 53f. (Heidelberg, 1922).

<sup>14</sup> Cf. E. Sapir, 'Sound-Patterns in Language,' *LANGUAGE* 1. 37-52 (1925).



In semanto-phonetic entities some or all of their phonetic parts may be contextually linked to one or more other phonetic elements, or to a number of semantic ones. Reversely some or all referential parts may be in systematic contexts with one or more other semantic elements, or with a number of phonetic ones. Their systematic contextual groups are much more complicated, but their systematization is less strict, less thorough and more diffuse. In this respect morphological elements as such occupy an intermediate position between single sounds and finished words. For the systematic contextual grouping of finished words may leave any number of their phonetic or referential parts free and untouched by the system, whereas radical and formational elements are at least strictly systematized in regard to each other. If we represent the referential aspect of semanto-phonetic parts by capitals and their phonetic aspect by small letters, and if we place the formational elements between parentheses, leaving the radicals free, we can formulate some types of their possible contexts as follows, taking Latin as the exemplified language.

(-I):DOMIN- = (-AE):ROS- = (-US):DOM- = (-IS):ARBOR- etc., or  
 (-I):(-US):(-O):(-UM) in regard to DOMIN- = (-AE):(-A):(-AE):  
 (-AM) in regard to ROS-, etc., or  
 (-i):domin-DOMIN- = (-ae):ros-ROS- = (-us):dom-DOM- = (-is):  
 arbor-ARBOR- etc.

or, in regard to the given radicals,

(-i):(-I) = (-ae):(-AE) = (-us):(-US) = (-is):(-IS), etc., or  
 (-i):domin- = (-i):arbor-, but (-I):DOMIN- = (-I):ARBOR-, and  
 consequently  
 (-iI):domin-DOMIN- = (-iI):arbor-ARBOR-, etc.

If we wish to illustrate English contexts we may get

(-z):tri-TRĪ- = (-s):buk-BUK- = (-iz):haus-HAUZ- = (-ən):ɔks-  
 OKS- = (-e):mæn MÆN, etc.

or, in regard to the given radicals

(-z):(-Z) = (-s):(-S) = (-iz):(-IZ) = (-ən):(-ĒN) = (-e):(-E), etc.,

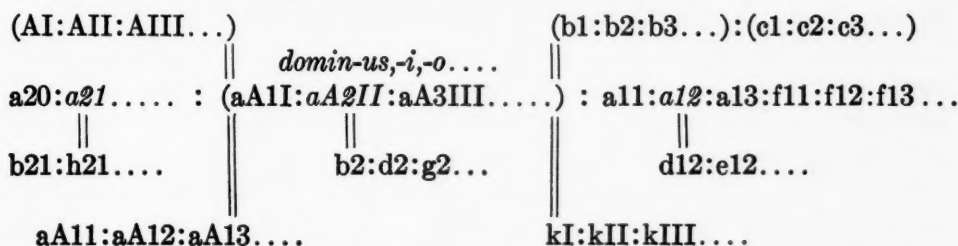
or, again in regard to the given radicals

(-Z):( ) = (-S):( ) = (-IZ):( ) = (-ĒN):( ) = (-E):(-Ē-), etc., or  
 (-z):tri- = (-z):giv-, but (-Z):TRĪ- = (-Z):GIV-, and consequently  
 (-zZ):tri-TRĪ- = (-zZ):giv-GIV-, etc.

As may be seen, in all these types of contexts both the radical and the formative elements are simultaneously included; that is what

makes them more strictly systematized than finished words. A language is considerably more hospitable to words than to morphological parts. If the latter are borrowed at all, they generally forfeit their specific character or they are subjected to the systematic morphological reshaping of the borrowing language. Thus, when the Germans adopted the French word *amus-er* it became *amüsier-en*, with an entirely different contextual grouping.

This suggests a distinction between two types of finished words: those which are the result of a systematic combining of still productive parts and those which are completely finished. Their relative number in a given vocabulary varies considerably from one language or linguistic period to another. These two types of finished words are contextually grouped in the system, but differently. The former enter into systematic contexts (1) as integral entities, (2) as decomposable into radical and non-radical elements and (3) as decomposable into sounds; the latter only as integral entities and as decomposable into sounds. Thus, the Latin *dominus* is contextually grouped with all the other declensional forms of the word and this contextual group as a whole or each complete entity of the group will be in a variety of contexts with other separate words or with other contextual morphological groups. The possible combinations are innumerable and it would be a Sisyphean task to try to give an approximately true picture of the situation. Leaving its further elaboration to the imagination of the reader we may give the following formula as an illustration of what takes place in the case of morphologically complex words.<sup>15</sup>



Parentheses = groups; letters = radical elements; small letters = phonetic aspect; capitals = referential aspect; figures = formative elements; Arabic figures = phonetic aspect; Roman figures = referential aspect.

a = *domin-*; A = *DOMIN-*; b = *bon-*; c = *radi-*; d = *don-*; e = *cre-*; f = *gubern-*; g = *puer-*; h = *stult-*; k = *arbor-*.

1 = *us*; I = referential nominative; 2 = *-i*; II = referential genitive; 3 = *-o*; III = referential dative; 11 = *-are*; 12 = *-ator*; 13 = *-atio*; 20 = *-ium*; 21 = *-a*.

<sup>15</sup> It is understood that the radicals referred to here are not those which the etymologist would analytically establish.

In this picture we have deliberately disregarded the eventual combinations with separate sounds, and the expansions or contractions which either the radical or the formational elements may present. But it is clearly brought out that morphologically complex words are pretty strictly systematized, because the radical and the non-radical parts, though contextually separable, are always simultaneously present, as regards both their phonetic and their referential aspects.

As to the other type of finished words, their systematic contextual combinations may be illustrated as follows:

- (1) phonetically  $[\text{h}\hat{\text{a}}\text{t}]:[(\text{b})\Delta\text{t}]:[\text{h}(\text{æ})\text{t}]:[\text{h}(\text{ud})]:[(\text{k}\text{æ})\text{t}]:[\text{h}\Delta(\text{l})]:[\text{h}\hat{\text{a}}\text{t}(\text{i}\eta)]:$   
 $[\text{h}\hat{\text{a}}\text{t}(\text{əd})]:[\text{h}\hat{\text{a}}\text{t}(\text{s})]. \dots\dots,$

in which formulation the dissimilar parts are between parentheses, and

- (2) semantically the reference symbolized by  $[\text{h}\hat{\text{a}}\text{t}]$  is likewise complex and may be represented by such a formula as  $1+2+3+4+5 \dots\dots$

On the other hand the references of the symbols *cottage*, *house*, *bungalow*, *shelter* may be formulated as follows,  $1+\text{II}+3+4+5. \dots\dots$ ,  $1+2+\text{III}+\text{IV}+5 \dots\dots$ ,  $1+2+3+\text{IV}+5 \dots\dots$ ,  $1+2+\text{III}+4+\text{V} \dots\dots$ . Hence we get the following referential contexts of  $[\text{h}\hat{\text{a}}\text{t}]:1+2+3+4+5 \dots\dots :1+(\text{II})+3+4+5 \dots\dots :1+2+(\text{III}+\text{IV})+5 \dots\dots :1+2+3+(\text{IV})+5. \dots\dots :1+2+(\text{III})+4+(\text{V}). \dots\dots$ , where again the dissimilar features are between parentheses.

In this particular example the phonetic components are pretty closely defined on account of the shortness of the symbol. The longer a word-symbol is, the more of its phonetic parts are apt to be left untouched by the system. Nevertheless the isolated word is as a rule phonetically bounded with fair precision, because sounds are, in a certain sense quantitative entities whose limits are more conspicuous. In regard to the referential aspect of the word under consideration, it should be noticed that a certain number of its features remain outside of the system and allow, therefore, of a freer handling. Although, as has been pointed out before, the isolated word is semantically defined in a certain way, its referential range can only be vaguely appraised, as with all mental abstractions.

The action of the system does not stop with the word; it also extends to the sentence. From a great number of sentence-experiences the mind abstracts common features and groups them. But on account of the

infinite variety and complexity of countless speech-experiences there are so many elements left free and the common ones are so general and abstract that it would be hopeless to attempt a schematic formulation. Systematic sentence-contexts are in terms of stress, pitch, rhythm, modulation, tempo, order, referential expansion, stricture, combination, etc. Hence the sentence is primarily free and is eminently the unit of speech.

It is often objected that the systematic facts of language are mere abstractions of the grammarian and do not answer to anything real.<sup>16</sup> Surely, to claim that all these countless and complicated contexts of sounds, morphological parts, words, and sentences should be consciously present in the minds of the speakers, would be more fantastic than to believe in the subsistence of universals. The systematization takes place unconsciously, and any context or part of a context only emerges when it is called for by some related contextual part or whole. Although the systematic facts of language are abstracted from speech, they are not mere abstractions but are engraphic entities.<sup>17</sup> The detailed phases of the process of systematization we may leave to the psychologist to explain; the fact itself is not only revealed to us by introspection, but is unequivocally manifest from general linguistic behaviour. The child builds up gradually and unconsciously the system of his language, and his occasional missteps are unmistakable signs of his groping efforts. Without systematic grouping it would be impossible to combine the linguistic material in a definite way for purposes of communication. Unconsciously even the most primitive people are grammarians, and in more than one sense they are better and safer than professionals. The grammarian's task is not to systematize and to abstract, but to analyze and formulate what the speakers do.

At this juncture it is possible to proceed straight to our objective: How is the word differentiated from the sentence and from the morphological elements?

When I utter the single word *wood* I detach it from the unconscious systematic contexts which its phonetic and referential elements respectively form with the phonetic and referential elements of other words in the system. Thus consciously detached the word appears with both its phonetic and referential aspects contextually connected and in a

<sup>16</sup> Cf. e.g. Sayce, *Principles of Compar. Philol.*<sup>1</sup> 131, and Brugmann, *Kurze vergl. Gramm.*, §364.

<sup>17</sup> Cf. L. Weisgerber, 307 f., and Pos 53f.

way defined and limited by the system. The result may be schematically represented as follows:

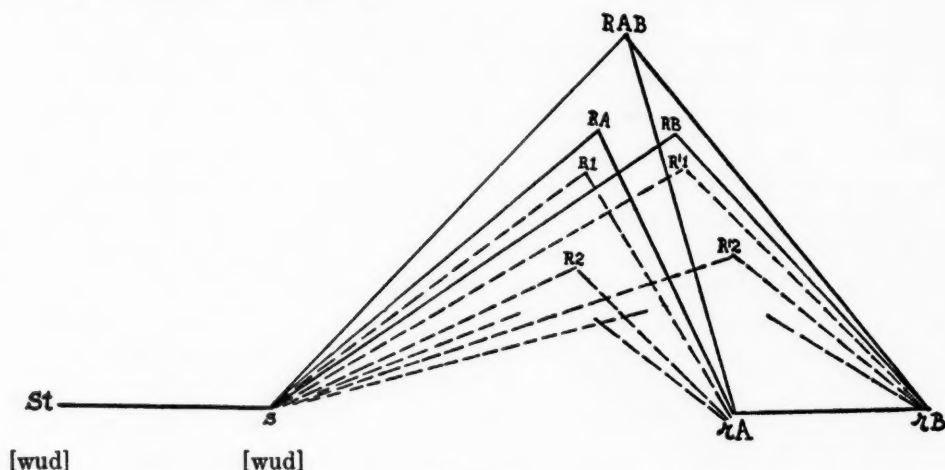


FIG. 1

St = stimulus; S = symbol; R = reference; r = referent.

St consists of the sound-combination [wud] which is in sign-context with S [wud]. S symbolizes the very general, common and complex reference RAB linking S to its two consciously related referents rA and rB. RAB is decomposable into the common complex reference RA linking S to rA and into the common complex reference RB linking S to rB. RA and RB respectively are decomposable into a certain number of more simple and specified references R1, R2. . . . and R'1, R'2. . . .

When I utter the sentence 'I break this piece of wood' the symbolization process may be pictured thus:

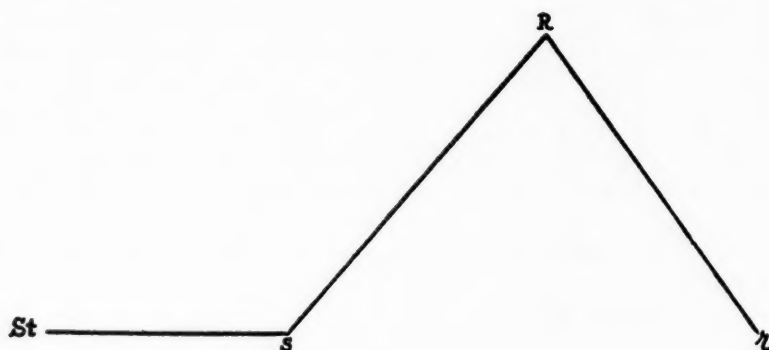


FIG. 2

St = stimulus; S = sentence-symbol; R = Reference; r = referent.



St may consist of the phonetic combination [aibreikðispisəvwud], which is in sign-context with the corresponding S. The latter symbolizes the sentence-reference R and is thus linked to its referent r.

A comparison of the two processes reveals some striking differences.

(1) a) The word is polysemous, that is, the same symbol is simultaneously in context with a variety of common and more specific references. This does not mean that all these references are consciously present with great or equal clarity; one or more may be set off, leaving the others in the penumbra of consciousness.

b) The sentence-symbol has only one specified and well located reference, and, of course, only one referent. Again this does not exclude the possibility of ambiguous sentences. But if they are so, they have to be expanded or otherwise located until they are unambiguous in all relevant respects, or they cannot serve their natural purpose of adequate expression or communication. As to intentional equivocating as well as Psittacism, these outgrowths of speech may be ignored in a short sketch like this.

(2) a) In the case of the single word both the symbol and its various references are engraphically or mnemonically predetermined.<sup>18</sup> The voluntary aspect of the whole process is limited, on the part of the speaker, to the possible evocation of some part of the context which then brings forth the other parts automatically, and to the act of utterance; on the part of the listener, all the phases of the process are primarily passive.

b) In the case of the sentence the following phases may be voluntary: on the part of the speaker, 1) the evocation of some contextual part, 2) the choice and the grouping of the various referential components, 3) the choice between a variety of possible symbols, 4) the act of utterance. On the part of the hearer the process is primarily passive.

(3) a) The referential contexts of the word-symbol are engraphically present in all the individuals who know the language concerned, whether the word is uttered or not, provided, of course, that the word belongs to their acquired vocabulary. These individual contexts may vary within certain limits as to their number, both actual and potential, their clarity, their complexity, their adequacy, etc., but in their general and basic features they are alike.

b) The referential context of the sentence-symbol is only present in the speaker and the hearer(s).

<sup>18</sup> Cf. H. Ammann 45.

(4) a) The spoken single word is exclusively or at least primarily a referential utterance.

b) The sentence may be 1) a purely or primarily emotive expression, or 2) a purely or primarily referential communication.

This is what we mean. The single word, as we have suggested before, never exclusively or primarily expresses an attitude (emotion, desire, etc.) of the speaker. Where it apparently does, as for instance, in exclamations 'Oh!', 'Beautiful!', or in curses, 'Damn!', etc., we really have sentences. I may, of course, detach a sound-combination like *damn*, or *beautiful*, or *donnerwetter* from the rest of the vocabulary-system, quite apart from any sentence-context; but if I do so, these symbols lose their exclamatory character and become mere mnemonic and polysemous symbols for complex references. When a phonetic combination like *sacrebleu* becomes a word-symbol, it does not express an attitude of the speaker. Instead of being a sign in an emotive context it becomes a symbol, whose complex reference is derived from many personal and impersonal sign-contexts *sacrebleu*, and whose referent is a certain attitude of any speaker. A certain emotive colouring may undoubtedly accompany the utterance of such a word, but this is decidedly a by-product. All that we utter by the single word as such is the symbol for a compound reference. Thus it is differentiated not only from an emotive expression, but also from a referential communication. Communication is positively foreign to the single word.<sup>19</sup> This remains true, even if we assume that one person may act in a dual function: as speaker and as listener. If we really communicate a word to ourselves as if we were the hearer(s), this word becomes a sentence, which when expanded would be something like this: 'The word-symbol for the complex reference "house" is [haus].' Such a phonetic expansion is obviously not needed here, because the sentence-context is largely expressed by the situation known to us. The fact that we always hear or that others may hear the word we utter, is merely an accidental circumstance. It is not the function of the single word to be communicated or to communicate.

From a hasty interpretation of figures 1 and 2 it might be concluded that the single word is really nothing else but the sum of a certain number of sentences. As a matter of fact each word-symbol can become the subject of a certain number of sentences in each of which one of

<sup>19</sup> Cf. A. Gardiner, 'The definition of the word and the sentence,' *Brit. Journ. of Psychology* 1922. 352 f.

the more general or more special references symbolized by the single word-symbol is the predicate. For instance, 'wood is a material', 'wood for building purposes is called timber,' 'a wood is a collection of trees', etc. But in the first place, in each of these sentences the reference of the symbol [wud] is specified by the sentence-context, whereas in the single word *wood* no such specification takes place. Secondly, the single word-symbol is in context with more than a mere sum of references; all the possible special references symbolized by the symbol have certain common features, however general, which represent the abstracted common reference of the word (RAB of fig. 1). Whenever the symbol is connected with a specified reference in a sentence-context, this reference is felt to be related in some way to the generalized common reference of the single word-symbol. In actual reality every new specification of a word-reference in a sentence results in a gradual transformation of the common abstracted reference; but psychologically the latter is static in the same way as the human body is a constant unit in spite of its biological changes.<sup>20</sup> It is very difficult to define such a generalized common reference, but such difficulty is inherent to all definitions. It by no means follows that the object of the definition sought is less psychologically real.<sup>21</sup> But even if we should succeed in defining it, we could only do so in a sentence. For instance, 'The generalized reference of the word-symbol [wud] is x'. The reference of this sentence would not be the same, however, as that of the single word-symbol [wud] itself, which is x. The sentence-reference would be a relation of correspondence between word-symbol and word-reference; the sentence-referent would be the semanto-phonetic word *wood*. The referents of the single word are the material (wood), and a collection of trees.

We can now see how apparently close the sentence and the word may come to be to one another, while actually they are just as removed from each other as the two poles of the earth. In the same respect a word is never a sentence and a sentence is never a word. The simultaneous presence of irreconcilable aspects in the same quantitative data is only superficially paradoxical. The same individual may at the same time be father and son, although the aspects of fatherhood and offspring are diametrically opposed. But if we wish to characterize the son qua son, we must do so independently of his fatherhood. The latter may only

<sup>20</sup> See H. J. Pos. 89, 90.

<sup>21</sup> I do not believe that a specified sentence-reference is necessary in order to speak of a 'symbol-context'. See Ogden and Richards, 404.

come in by way of antithetical and negative element of external demarcation, not as a positive element of referential definition.

The expression 'sentence-word'<sup>22</sup> in our conventional linguistic terminology is, therefore, a particularly unfortunate one and should be discarded. In linguistic science it is, at least as a dvandva-compound, just as sterile and misleading as the expression 'father-son' would be in anthropology. It is surprising that some inventive linguistic engineer has not yet thought of endowing our young science with such hybrids as 'sentence-syllable' and 'sentence-sound.'

However, the term 'sentence-word' could be made useful by having it refer to the 'word-within-the-sentence'. As such it would form a most convenient contrast to such symbols as 'single word', or 'isolated word', or 'system-word'. The question as to what becomes of the word when utilized as part of the material of the sentence is a very interesting one and is able to throw more light upon the nature of the word. That we 'use' words in speech is beyond doubt, in spite of the fact that the sentence is the real and primary unit of speech and that we do not form sentences by merely juxtaposing words. As suggested before, the primitive word has developed from the speech-sentence;<sup>23</sup> once, however, it had been recognized as a recurrent contextual entity, it was not only used in similar, though different, speech-contexts, but it soon also became the object of extra-speech combinations. Let us again resort to a schematic picture. The sentence 'I have not seen her' as pronounced in current speech may be represented as follows:

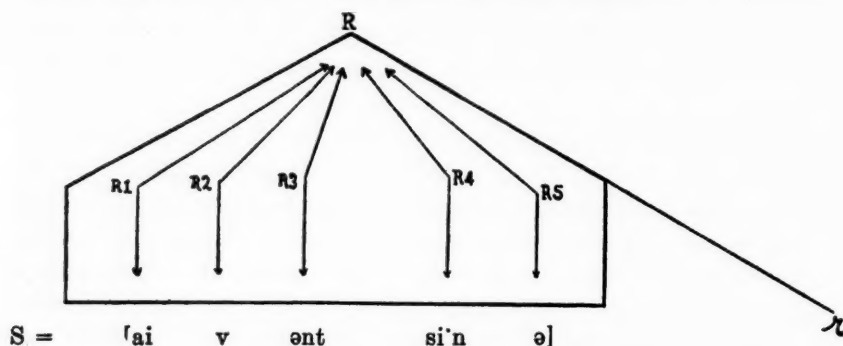


FIG. 3

S = the phonetic sentence-symbol; R = the sentence-reference; R1, R2, . . . . = the component references phonetically symbolized; r = the sentence-referent.

<sup>22</sup> Cf., e.g., L. Bloomfield, 64, 111.

<sup>23</sup> Cf. Rozwadowski, *Wortbildung und Wortbedeutung* 58 (1904). W. Wundt, *Völkerpsych., Die Sprache* I<sup>4</sup> 609 f.

The phonetic symbol consists of a combination of sounds flowing into each other so that we can only distinguish certain outstanding elements, which correspond to the phonetic letters in our picture. This sound-combination is presented as one unit. Its unity is derived from the unity of the situated reference and of the referent, and is phonetically expressed by accent, modulation, rhythm. From the point of view of sonority we can distinguish four waves whose crests are on a, ə, i, ə. From the point of view of stress we find two groups the first of which is ['aivənt] and the second ['si'nə].

What has happened? The word-material supplied by the system to the sentence has been curiously crippled. It has been absorbed and thoroughly welded together, so that the word-boundaries are completely wiped out. They can only be approximately ascertained by resorting to the system for comparison. Of the words [hæv] and [hə'] all that is left is [v] and [ə]. The word [nɒt] has been changed into [ənt]. And yet the sentence-symbol is perfectly adequate. Its reference does not need for its symbolization all the richness of the systematic symbols. This absorption of the word by the sentence may, of course, be more or less complete, but it is a characteristic feature of the spoken sentence.<sup>24</sup>

An examination of the referential part of the sentence reveals a similar condition. Of the various references of each isolated word the sentence has picked out and adapted one suitable for the purpose, while all the others are temporarily cancelled. By a process of metaphorical abstraction this reference might even assume a very personal and unique character. The specified single word-references are brought into connection of subordination, coordination, definition, etc., with each other and with the general and more specific situation, so that the result is one unambiguous sentence-reference.

If now we compare the referential components with the phonetic divisions of the sentence-symbol, we find that they do not at all correspond to one another. Neither the sounds, nor the syllables, nor the stress-groups symbolize any particular reference. There can only be a question of correspondence between symbol and reference, if we consider the sentence as a whole. And so we see that the sentence has not only whimsically utilized and absorbed the referential and phonetic parts of the single words, but that the unity of the latter has been literally destroyed. Reference and symbol have been torn apart, so that there is no trace left of a word 'unit' within the sentence. If we

<sup>24</sup>Cf. O. Dittrich, *Grundzüge der Sprachpsychologie* I. §92 C. (1903).



look for the word within the sentence, we must be prepared to find perhaps no more than relatively identifiable debris which can only be put together and expanded with the help of the system. This shows how utterly impossible it is to define the single word as long as we look for it within the sentence.<sup>25</sup> All the mental subtleties which have been mobilized to arrive at a formula on such a basis have been futile and without success. The single word is a systematic unit and the word-within-the-sentence can only mean the word-material used by the sentence in its own characteristic way. It is of no direct concern to the single word how far the speech-sentence goes in the stretching, constricting, dismantling and absorbing of its systematic word-material. That in German the morphological single word *stattfinden* is sometimes phonetically torn apart in the sentence, by no means destroys its systematic unity as it is undoubtedly felt by the German-speaking community. If, as Jespersen wants it,<sup>26</sup> this separation of the two word-components in the sentence were a criterion of word-duality, we might with the same right maintain that *not* is not a word at all in English. For in the spoken sentence it occasionally is entirely swallowed up by a neighbouring sound, as for instance in the sentence 'I don't want to', which is often pronounced [aidəwə'ntu]. Indirectly, of course, the behavior of the sentence affects the system-words inasmuch as speech provides the material for systematic abstraction and grouping. But, as a rule, that which is abstracted and systematized, namely the single word, is not the result of one or certain specific speech-experiences but of many and very diverse ones. Hence the general answer to the general question as to how many words are used in a sentence is easily given. There are as many as in the light of the word-system of the language concerned can be put together with the phonetic and semantic debris gathered from the sentence.<sup>27</sup> In order to apply this principle it is no doubt necessary to be thoroughly familiar with the systematic and speech-functions of the particular language. It takes little daring to defy anybody to ascertain the number of words used in a sentence of a language whose system is entirely unknown to him, even after a literal translation of the sentence has been given him. In order to be in some measure successful he would need a large number of other sentences, so that from their common parts he might himself be able to abstract the linguistic sys-

<sup>25</sup> Cf. e.g., O. Dittrich, *Die Probleme der Sprachpsychologie* 111 (1913), and others.

<sup>26</sup> Cf. O. Jespersen, *The Philosophy of Grammar* 95 (1924).

<sup>27</sup> Compare with this Boas' definition in his *Handbook of Indian Languages*. Introduction.

tem. Even the knowledge of the latter does not always enable us to point out the words in an empirically given sentence. But in this there is nothing disturbing or surprising. If it is true that owing to the system a language remains sufficiently itself to be felt as a stable form by the speaking community at a given time, it is no less true that owing to speech it evolves more or less slowly but steadily. The abstracting of data from a large number of experiences, their grouping and systematizing among data already mnemonically embedded in systematic contexts, is a process which is continuously operative in the speakers' minds. A very long time is often required for a free syntactical combination to become a compound-word, for the compound to become a morphological word, and for the latter to become a simple word. Besides, the free compounding of already systematized words, both phonetically and semantically, is a most convenient and frequent means of creating shorthand terms, momentary and purely individual speech-products, of which only a limited number become generally systematized. In speech, then, we are bound to find components whose process of systematization is not sufficiently advanced to allow of any clear-cut classification. This is not due to a defect in the definition of the various systematic units, for instance, of the word, but to the evolutionary character of language.

If we are asked how many and which words are used in an sentence like [aidwɔ'ntu], we shall point out five, namely [ai], [du], [nɔt], [wɔ'nt], [tu]. But manifestly that is not what we actually have in the spoken sentence. Such a decomposed sentence and its words are purely artificial, because we make the semantic part of each word artificially correspond to a phonetic symbol. We may occasionally speak something that sounds very much like it, as for instance when we wish to emphasize each word for some reason or other. As such, however, these words never occur in the system, because although phonetically they may agree with the systematic word, semantically they are determined by the sentence; neither do they, as a rule, occur in the spoken sentence, because in the latter their unity is broken and torn asunder. Besides, this very decomposition is only made possible by resorting to the system. What we really do when we thus separate the words of a sentence amounts to a temporary and methodological abstraction by means of which speech and system may be compared and tested reciprocally. To define the word on the basis of such artificial entities would result in multiplying the number of words *ad infinitum*. For on the one hand each of such words has a meaning specified by the sentence-

context which would be different from one sentence to another; on the other hand a word like French *mois* in the sentence *je le vis un mois après* would not be called the same word as that of the sentence *il y a deux mois que je ne l'ai vu*, because of their phonetic difference ([mwaz] and [mwa]). That the spelling of a language is no safe guide should be sufficiently realized today after all we know about the relationship of written and spoken language.

But what about the difference between radical and formative elements on the one hand and words on the other? Surely they all are systematic entities; but whereas the word can be turned into sentence-material without any further systematic construction, the radical and formative elements as such are previously subjected to a systematic structure. Again the acquaintance with the linguistic system and its mechanism is a prerequisite for the distinct separation of finished words and of morphological parts from the sentence. This is no vicious circle, because even where in a sentence a morphological word is used which we have never heard before, we are able to recognize it as such. Any English speaking person who hears for the first time a sentence like 'I have been skiing', knows that *ski-* is here used as a radical and *-ing* as a formational element. Similarly, when I heard for the first time the sentence [aidəwə'ntu] I never thought of considering the nasalization and peculiar timbre of [o] as a morphological element of the conjugational system of the verb. Nor is it a safe criterion that a certain sound-combination may or may not occupy different positions with regard to other combinations within the sentence.<sup>28</sup> The inference drawn in this manner may often be correct, but not always. Thus, the fact that the English article may be separated by one or more other words from the word it determines is in itself not sufficient to establish its identity as a word. On that account the English genitive element *-s* would be a word, for it is occasionally separated from its noun (cf. the expressions, 'William of Orange's reign', 'that man over there's coat'). Furthermore, the application of such an external criterion would meet with innumerable difficulties in the case of so-called incorporating languages.

We can now examine in what sense one word may be said to be a variety of another. The whole matter is one of systematic grouping. Since the supposition is that there are common elements bound to differentiating ones, the feeling of absolute word difference or relative identity will chiefly depend upon the relative closeness or aloofness

<sup>28</sup> Cf. O. Jespersen, *Language* 423f.

which is felt to exist between the various differentiating elements with regard to the common one. In this respect conditions may not be the same in different types of languages, so that it is impossible to arrive at any definite conclusions of universal applicability. The following analysis is based upon the conditions prevailing in our IE languages. In order to deal with this problem, however, we must separate two distinct types of cases. (1) The difference is neither a morphological nor a categorical one. (2) The difference is either morphological, or categorical, or a combination of the two.

(1) In the first case the difference may be one of sounds, or of reference, or of both. (a) If we assume that two exact synonyms do not occur, then a purely phonetic difference can never result in word-differentiation. Thus, French [mwa] and [mwaz] 'month' are varieties of one another. If we disregard minor semantic shades so that we believe in synonyms, a purely phonetic difference does not entail a difference of words, if the two sound-combinations are felt to be closely related. Example, French [mwa] and [mwaz] 'month'. If the two phonetic forms are not felt to be closely related, we have two synonymous but different words. Thus, *heaven* and *sky*.

(b) Within the same category a semantic difference with identical sounds entails a difference of words, if the process by which one reference has been substituted for another is no longer felt by the speaking community in general. Otherwise they are varieties of one another or even the same word. Thus, English *top* 'highest part', and *top* 'a toy' are two words, whereas German *Himmel* 'heaven' and *Himmel* 'sky' are said to be the same.

(c) Where both the reference and the sounds present partial differences we shall a fortiori have different words, if either the semantic or the phonetic differences, singly or combined, are such that they would entail word-differentiation on the grounds given under a) and b). Thus, German *schlecht* and *schlicht* are two different words, although phonetically they may be felt to be closely related.

(2) In the second case we must distinguish between a mere categorical difference and a semanto-phonetic morphological one. (a) If there is merely a semantic difference of category, the question of differentiation or relative identification becomes very delicate, because the feeling of relative aloofness or closeness of the two categories may fluctuate in the language concerned. Thus, in English the adjective is felt to be categorically close to the noun, in German the adjective to the adverb,



so that English *stone* (noun) and *stone* (adjective) or German *schlecht* (adjective) and *schlecht* (adverb) may be considered varieties of each other or even the same words. The aloofness of noun from verb is more pronounced, so that *act* (noun) and *act* (verb) might be more strictly kept apart. However, there seems to be a great deal of hesitation, with a tendency to relative identification. But if a phonetic difference is found to complicate the situation, as for instance in English [haus] (noun) and [hauz] (verb), this tendency loses much of its strength. (b) A morphological difference in the technical sense of the word is of course always semanto-phonetic. Now, it may happen that one of the two morphological parts (i.e. the radical or the non-radical element) is the same, or that both are different. If there are two different radicals with identical non-radical elements we speak of two different words. For instance, *hand-s* and *arm-s*. If the same radical is expanded by two different non-radical elements, the absolute differentiation or relative identification again depends upon the relative aloofness or closeness between the differentiating parts. In English, German, and French a difference of gender, number, comparative degree, conjugational or declensional form is generally thought to be slight enough to allow of relative identification. Other differences of categorical or non-categorical meaning are generally felt to entail word-differentiation. Thus in English, *love: lovely: loveliness*, *(to) fall: (to) fell*, *yellow: yellowish*; or in German, *können: kennen*, *hoch: Höhe: Hoheit*, *kommen: bekommen*, *Furcht: furchtbar: furchtsam*; or in French, *travailler: travailleur*, etc. If both the radical and the non-radical elements are different, the relative semantic identity may occasionally be felt so strongly that relative word-identification is the result. Thus the various conjugational forms of *to be* might be said to be varieties of one another. As a rule, however, the feeling of differentiation will prevail.

Without attempting to give any formal definitions we may sum up our discussion by pointing out such factors as may be inferred to be relevant or irrelevant to the sentence and the word.

For the sentence, some articulate sound or sounds are necessary; their number or character is immaterial, provided there is one; they are determined partly by external circumstances, inasmuch as they are utilized systematic symbols grouped according to the prevailing system of sentence-structure, and partly by free choice, inasmuch as we may choose from a variety of symbols and structures and run them together to a degree suitable for the purpose; each systematic word-symbol utilized must be present at least in the form of a sound-element; the sound or



sound-combination may be in a momentary sign-context with the speaker's attitude and uttered either for the purpose of mere self-expression or simultaneously also of communication; the semanto-phonetic unit so obtained must be capable of producing a similar attitude in a suitable interpreter; or the sound or sound-combination may be in a momentary symbol-context with a specified reference and uttered for the purpose of communication; the semanto-phonetic unit so obtained must be capable of causing a suitable interpreter to make the same reference in all relevant respects.

For the word, some articulate sound or sounds are required; their number and character are immaterial, provided there is one; they are predetermined by external circumstances, historical and systematic; they are systematically grouped as a unit; they are in a mnemonically predetermined symbol-context with a complex reference or consciously interrelated references likewise systematically grouped and relatively determined; this semanto-phonetic unit is in its basic features common to all the speakers of the same language, provided it is part of their vocabulary; possible complications with sign-contexts are immaterial; this unit is ready to become sentence-material without needing any further systematic structure or allowing of any decomposition into other such units; the use made of it by the sentence is immaterial, provided a phonetic element is left whose corresponding specified reference is traced to the systematic word-reference; both self-expression and communication are foreign to the word.

On this basis it is possible to define a) the simple word as a word which is felt by the speaking community not to be decomposable into or synthetically resulting from minor semanto-phonetic parts; b) the morphological word as a word which is felt by the speaking community to result from a combination of two minor semanto-phonetic parts, at least one of which cannot become sentence-material without further systematic structure; c) the compound word, if primary, as a word felt by the speaking community to result from a combination of two simple or morphological words whose phonetic elements are united according to a systematic pattern and each of whose referential contexts appropriates part of the other.

For the word within the sentence, some sound, sound-combination, or sound-element (nasalization, accent, timbre, etc.) is required; the character or number of these features is immaterial; they are determined partly by the systematic word, partly by the degree of absorption and adaptation in the sentence; they are in a momentary sign- or symbol-

context with a semantic part of the sentence, but as such they form no unit; their emotive or referential meaning as well as their phonetic part is found in some corresponding systematic word-context, or is felt by the speaking community to be traceable to some such context.

Finally we may note that the word as described above is clearly distinguished from the dictionary-word.<sup>29</sup> The dictionary, it is true, gives the main referential contexts of a word; but because its classification is founded exclusively upon the arbitrary principle of alphabetical order, its words may also include such references as are felt by the speaking community to be part of entirely separate word-contexts (e.g. *ball* 'round object', and *ball* 'entertainment of dancing'). Besides, hardly anything of the systematic phonetic grouping is indicated. To give a somewhat faithful picture of the system-word the dictionary would have to group words together in clusters showing the many-sided phonetic and semantic contexts of each word.

<sup>29</sup> Cf. L. Weisgerber 318, 319; A. Dauzat, *La Philosophie du Langage*, pp. 214-215 (1917).

## BOOK REVIEWS

**Menomini Texts.** Pp. xiv + 607. By LEONARD BLOOMFIELD., New York: American Ethnological Society (G. E. Stechert and Co., Agents), 1928.

Professor Bloomfield has given us here a series of connected Menomini texts, adequately recorded, together with English translation. Hitherto the best Menomini linguistic material has been the isolated words given by him; the words cited by Hoffman, etc., are so badly recorded as to be of little value for detailed studies. Now we have text material, ample in extent and of a high quality, upon which a descriptive (not to say comparative) grammar may be based. A bibliography on the Menomini in general is given, from which hardly anything of importance is missing, though perhaps Boas' work on their physical anthropology (in *Z. f. Ethnologie*, 1895) and Dixon's 'Mythology of the Central and Eastern Algonkins' (*J. American Folk-Lore* XXII) might well have been included. A handsome tribute is paid the late Alanson Skinner for his labors among the Menomini; and due acknowledgments are given to his own informants, etc. The volume is in general faultless in externals; personally I should have preferred roman to italic type for the Indian texts, and an indication of every five lines (or some other arrangement) would have made references to the texts easier. The only misprint in English which I have noted is 'whar' (263) for 'what.' So far as I can judge the English translation is close to the Indian texts. Occasionally it deviates slightly. So, for example, *nipāt* (354) is translated 'he went to bed', whereas, to judge from the analogy of several other Algonquian languages, it means 'he slept'. And occasionally passives are translated as actives. So *ikō'kin* (258) is rendered 'he told them'. These are minor points, perhaps not worth mentioning when reviewing so splendid a piece of work.

Menomini is not an archaic Algonquian language; there are a number of secondary phonetic changes which must be borne in mind when comparing it with other Algonquian languages; but there are also variations which are inherited: among which I think the contrast between the *u* of *ukē'māw* 'chief' (280) and *ō* of *kitō'kimaminaw* 'our [incl.] chief' (282) is to be counted, as shown by the evidence of Fox, Kickapoo, Sauk,

and Ojibwa. On the other hand Menomini is at times decidedly useful. So, for example, *ki'waskipī'w* 'he is drunk' (280) backs my Fox *kīwa-ckwāpyāwa* as opposed to Jones' *kīwe-*; Algonkin proper, Kickapoo, Ojibwa, and Sauk fall in line also. More archaic than Fox *A-* is Menomini *u-* in *unā'kōw* 'yesterday' (Fox *anāgōwe*), *usā'm* 'too much' (356; Fox *A'sāmi*), *usē'htawak* 'they made it' (570; Fox *A'ci'tōwagi*), *uhkā'nan* 'bones' (404; Fox *A'kanani*), etc.; similarly the *i* of *iskō'tāw* 'fire' (2; Fox *A'kutāwi*). The evidence of Cree and Ojibwa proves the secondary character of Fox *A-* in such cases. Yet the chronology of these is not the same everywhere, as is shown by Kickapoo which sometimes agrees with Cree and Ojibwa as regards the quality of the vowel, sometimes with Fox (Jones' Kickapoo texts can not be entirely relied upon for the distinctions). It should be mentioned that even at times the strongly aberrant Arapaho shows Fox *A-* to be unoriginal. Peoria (and Lenape) supports Bloomfield's contention that the surd stops of Menomini are more original than the sonant stops of Fox, Cree, and Ojibwa; so does Blackfoot. At times Menomini apparently is our sole guide in reconstructing the Algonquian archetypes; so, for example, the *y* after the *ts* in *as unītsya'nehsitua'* 'when they had a child' (76), as Bloomfield himself has pointed out. The contrast between Menomini *kitāsku'ahtem* 'your door' (430) and Fox *ketō'ckwātāmi* is due to secondary changes in both Menomini and Fox; in Fox they are, I think, partly not strictly phonetic, but rather analogical; per contra compare the regular set Menomini *isku'ahtem* 'door' (2), Fox *A'ckwātāmi*.

Owing to the fact that rhetorical and allegro forms are very properly left (and not normalized), occasionally it is difficult for one not wholly familiar with Menomini to be quite certain as to what the original quality of a given vowel is. A list of stems with references to the texts would have been a fine help in such matters. Let us hope that we will not have to wait too long for a Menomini vocabulary and grammar. In the meanwhile let us congratulate ourselves that Bloomfield has given us a tool which every one can use for his own advantage.

TRUMAN MICHELSON

**Comparison of Tagalog and Iloko:** Dissertation for the obtention (*sic*) of the Doctor's degree in the Faculty of Philosophy of the University of Hamburg: presented by Cecilio Lopez of Manila: Hamburg 1928: pp. 188.

This study is the work of a young Tagalog, formerly an instructor in French at the University of the Philippines and at the same time a stu-

dent of Oriental languages there under Professor Otto Scheerer. He has already shown considerable linguistic ability in helping me to prepare a revision of my Tagalog Grammar, by checking the statements of older Spanish authorities with modern Tagalog usage. He is the author of an interesting manuscript article on the Boak Tagalog of the Island of Marinduque. The present work is an attempt to present in a comparative treatment the most salient linguistic features of Tagalog, the most important dialect of the Philippine Islands, and of Iloko, the most prominent dialect of Northern Luzon.

The first twelve pages are devoted to Bibliography, Abbreviations, Table of Contents and Introduction: pp. 13-38 present a 'Phonetic Comparison' of the two languages with the parent Indonesian speech: pp. 39-49 deal with what the author calls 'Morphological Comparison,' but which treats practically nothing but the phenomena of reduplication and accent: the 'Comparison of Word Forms' which follows in pp. 50-142 contains most of the morphological material: pp. 143-65 presents a 'Syntactical Comparison': pp. 166-85, a 'Lexical Comparison': the author's conclusions, which have already appeared in part in connection with some of the above sections (pp. 33-8, 48-9, 61, 73, 82-3, 132, 138, 184) are summarized on pp. 186-7; at the end of the work is the usual biography attached to a dissertation.

Any contribution to Philippine linguistics is of course welcome to all those interested in Philippine languages, and the author has here presented in convenient form a number of important items concerning the two languages, but the work is disappointing in that it presents few comparative statements not already published. Moreover there is no systematic treatment of the 'ligatures,' and a discussion of the most difficult problem of Iloko, that of the so-called 'verbales', is entirely missing.

The English is frequently awkward, and there are certain minor defects in the mechanics of the book; e.g., different symbols (*n* and *ng*) are used for the guttural nasal in different parts of the work (cf. notes to pp. 19, 21, 40), and the note to *kitik* on p. 30, which deals with a device used throughout the work to indicate repetition, should have been given a more prominent place near the beginning of the book. Occasionally a necessary explanation is omitted, e.g., there is no statement as to the phonetic meaning of *t'*, *d'*, etc. The author invents or adopts a number of new grammatical terms which are never a help and are often a hindrance to an understanding of his work. For example, he uses the term quasi-verb instead of verb, not realizing apparently that it is not only



perfectly proper, but also distinctly advantageous to have one term for words in all languages which carry the action of the sentence; on p. 139 for reasons not stated he restricts the term 'real particles' to a selected few. The term 'fricative' is apparently incorrectly applied to *l* and the semi-vowels *y* and *ɟ*, pp. 13, 16. Forms like *mamunga* from a root *bunga* he ascribes to 'prenasalization' which he does not clearly explain; such forms as the above represent the combination with assimilation of a particle *man* or *mang* with the root (*man-bunga* > *mambunga* > *mammunga* > *mamunga*, cf. Blake, 'The Tagalog Verb', *Jour. Amer. Orient. Soc.* 36. 402-3 (1917). The author fails at times to distinguish between morphological and semantic categories, e.g., on p. 61 he confuses case forms and case relations.

In his 'Lexical Comparison' no statement is made as to how the words are selected. It is difficult to see how any valid conclusions could be drawn from a few hundred words apparently chosen more or less at random.

The best parts of the work are the comparative discussions of noun and verb forms, pp. 65-83 and pp. 83-118. The comparative statements concerning the glottal catch (p. 17 f.), and the language of 'polite speech' (p. 125), though brief, are important and new.

The success of comparative linguistic study that is not confined to phonology and morphology depends very largely on the knowledge of the principles of general grammar possessed by the author, and on his realization of the supreme importance of semantic categories as a basis of comparison. It is certain that Mr. Lopez has in his mental possession sufficient linguistic material for a thoroughgoing comparative treatment of Tagalog and Iloko, and it is to be hoped that he will continue his studies in this field and complete the comparison of the two languages here begun.

FRANK R. BLAKE

**The Serâbît Inscriptions.** I. The Rediscovery of the Inscriptions. By KIRSOPP LAKE and ROBERT P. BLAKE. II. The Decipherment and Significance of the Inscriptions. By ROMAIN F. BUTIN, S. M. (*The Harvard Theological Review*, Volume XXI, No. 1, 1928). Pp. 67 and VIII plates.

In 1904-05 Sir W. M. Flinders Petrie discovered some inscriptions on Mt. Serâbît el-Khadem of the Sinai Peninsula in a character resembling Egyptian Hieroglyphs, but an interpretation of them as Egyptian did not yield any meaning. Alan H. Gardiner was the first to find out that

here were Semitic texts written with Egyptian hieroglyphic signs on the principle of 'acrophony.' Following up this clue he deciphered the word *ba'alat*. It would be long to enumerate the scholars who took up this discovery and tried with varying degrees of success to decipher the whole alphabet, of which only the letters of the word *ba'alat* seemed to be sure.

However, all attempts to decipher the inscriptions (one supposed that in one of the inscriptions Moses thanked the Pharaoh's Daughter Hatshepsut for saving him from the Nile!) were frustrated by the fact that there were only photographs at the disposal of scholars, while the stones inscribed were such that in most cases cracks and real signs could not be accurately distinguished in the pictures. In other words, there was no real basis for scientific work as long as the originals were not at hand. To discover these originals, which were lost during the war, was the real object of the expedition. It was successful, and thus led to the first authentic and scholarly decipherment of the actual (not photographic) material by Butin.

It is not my intention in this short review to go into details, nor to point out, as is often done, that it might be possible to read one or two obscure signs differently. It would be altogether an injustice in the present case; for Butin, the decipherer, has exhibited the enormous ability to combine genius with self-restraint to an extent which must win him the admiration of every scholar who ever tried to decipher texts, especially texts of this sort.

In the first part (pp. 1-8) Lake and Blake tell us the story of how the material was discovered by the expedition; in the second (pp. 9-67) Butin explains the decipherment and the significance of the texts, with copious bibliography, going even so far as to add to his own decipherment of each inscription also the former translations.

The contents of the texts are simple dedications and the like, just what might be expected from a gang of miners in the mountains. The significance of the inscriptions and their great importance lies in the fact that we have before us the oldest known alphabet, and, what is still more, that this kind of alphabet was the mother of practically all the known alphabets of the world, our modern alphabets included.

The Serâbit inscriptions are of the time around 1850 B.C., as Butin rightly points out, and we get thus about the year 2000 B.C. for the actual invention of the first real alphabet, as far as we know.

To show how this alphabet was invented would go too far here; but, in short, the Semite took, for instance, the Egyptian sign for 'house'

and (not caring what 'house' was in the Egyptian language) called this sign in his own language *beth*. Then according to the 'acrophonic' system he used this sign for the sound [b]; and so for every letter.

The formation of the Egyptian and the Semitic languages was the same with regard to the vowels, and as the vowels were not expressed in the Egyptian writing, they were not indicated by the Semite either. To express the vowels in the alphabet remained for the Greeks.

Butin gives an excellent chart of the old alphabetical signs, and compares them with the other alphabets in question.

The importance of this work cannot be overemphasized, and we may look forward with eager anticipation to the return of its authors to the Sinai Peninsula in 1930. Our best wishes accompany them.

NATHANIEL JULIUS REICH

**Kleine Litauische Sprachlehre.** (Methode Gaspey-Otto-Sauer.) Pp. xii + 304. By DR. ALFRED SENN. Heidelberg: Julius Groos Verlag, 1929.

This volume is a method book for the learning of Lithuanian as a spoken language, as well as for reading it; yet while it therefore falls into the class of 'practical' books rather than of strictly 'scientific' volumes, it deserves a few words here.

An introduction deals briefly with the position of Lithuanian genetically among the Balto-Slavonic languages and in the Indo-European group, as well as geographically among its neighbors; with the exact area over which Lithuanian is now spoken, and with the dialects of Lithuanian and their distribution. Next come the alphabet and the pronunciation, given in detail and with precision. Forty lessons (pages 16-243) follow, with exercises for translation into and from Lithuanian; and all sentences are taken from actual Lithuanian texts—even the German sentences have been translated from actual Lithuanian documents for re-translation into Lithuanian, so that there is no 'made' Lithuanian at any point. An appendix (244-57) gives a summary account of word-formation and composition, after which come the vocabularies and an index. A key to the exercises is available as a separate pamphlet of 48 pages.

Dr. Senn's volume is a convenient and valuable addition to the slender facilities available for the study of Lithuanian as a living language, and is doubly welcome as presenting the language in its official form (cf. p. vii).

ROLAND G. KENT

**Szyrwids Punktay Sakimu (Punkty Kazan').** Litauisch und Polnisch, mit kurzer grammatischer Einleitung herausgegeben von Dr. FRANZ SPECHT. Pp. 62 + (Part I) 12 + 382 + 6 + (Part II) 8 + 259. Göttingen: Vandenhoeck & Ruprecht, 1929.

Constantin Szyrwid (1580-1631) was a Lithuanian by birth; he entered the Jesuit order and received a thorough education in theology, rhetoric, and philosophy. In his later years he was stationed at Vilna, where he preached to the peasants in Lithuanian at the early morning and the afternoon services, and to the nobility in Polish at the late morning service. He wrote out a series of 'points' with appropriate exposition, for the Sundays and certain other days of the Church year.

The first part of this, from the first Sunday in Advent to Quinquagesima Sunday, was printed in 1629 by the Jesuit Press in Vilna, and a copy of it is now in the Theological Seminary in Kaunas (Kovno); the second part, reaching to Easter Tuesday, was printed in 1644, and the copy in the University Library at Kaunas seems to be unique.

The present volume contains a mechanical reproduction of these two parts. After title-page, dedication, and table of contents in Latin, the 'points' follow, with Lithuanian and Polish in parallel columns. Professor Specht has prefixed an introduction dealing with Szyrwid's life and writings (7-11), orthography of the text (11-14), vocalism (14-22), consonantism (22-4), inflexion of noun (24-31), of adjective (31-5), of pronoun (35-7), of numerals (37-8), of the verb (38-44), linguistic summary (44-8), critical notes on the text (48-61).

The Jesuit printing house of 1629 and 1644 did not have all the accented characters necessary to represent the language with precision, and there is therefore a considerable variation in the orthography (noted in pages 11-14); even as we have here for typographic ease spelled the priest's name with Sz-, as he himself spelled it, instead of with a capital š-, as Professor Specht prints it in the title of the book and elsewhere.

The language of the *Punktay* is shown to be essentially East Lithuanian of the educated class, not of the peasant, and to vary in a number of features from the standard West Lithuanian; these are noted in the grammatical introduction. The Polish version, the editor says, is of even higher literary grade, since it was intended for the ears of the nobility, and often is not a mere translation of the Lithuanian, but a free paraphrase.

Professor Specht has given us in this volume a most important document and interpretation, for the history of the Lithuanian language.

ROLAND G. KENT

**De Latijnsche Genitief Singularis van de O-Stammen.** Pp. 21. By JOS. SCHRIJNEN. (*Extracted from Mededeelingen d. Kon. Ak. v. Wetenschappen, Afd. Letterkunde, Deel. 67, Serie A, No. 4, pp. 91-111.*) Amsterdam: 1929.

Professor Schrijnen examines the distribution of the ending  $-\bar{i}$  of the genitive singular, and outside Latin and Celtic he finds it in Venetic, Messapian, 'Celto-Ligurian', and 'Lepontic' inscriptions, possibly also in Etruscan. On this basis, along with its absence from other branches of Indo-European, he sets up the theory that the  $\bar{i}$  ending is taken from a non-Indo-European language spoken by the pre-Indo-European population of the region. He reviews other theories as to the origin of the  $-\bar{i}$ , but seems to overlook two factors. If the  $-\bar{i}$  is by origin a monophthong, as is usually held, then it is hard to deny equation with the Sanskrit adverbs' in  $-\bar{i}$  which form periphrastic phases, e.g., with the verb *kr*. On the other hand, Ehrlich in his *Untersuchungen über die Natur der griechischen Betonung* 66 ff. may be right in holding that this genitive ending is an old locative in  $-ei$ , which became monophthongized in Latin before the earliest records, and is therefore distinct from the product of original  $-oi$  (nom. pl. of  $o$ -stems) and  $-ai$  (dat. sg. of cons. stems; despite Hirt, *Idg. Gram.* 3.48-53), which became monophthongs later. Schrijnen seems not to have weighed Ehrlich's argument carefully, for he speaks of his 'miskennen van het beslist monoftongische karakter van de  $\bar{i}$ ' (3 = 93).

A somewhat similar argument for the non-Indo-European origin of the  $r$  in medio-passive verbs is not worked out in so much detail by Professor Schrijnen, and appears not to take adequately into account the  $r$  in Indo-Iranian verbs of the third person plural, nor the use of the same verbal ending in Hittite. Yet the whole article is well-documented and stimulating, an antidote to a too narrowly Indo-Europeanistic attitude.

ROLAND G. KENT

**Die griechische Dichtung.** Pp. 383. By ERICH BETHE. Wildpark-Potsdam: Akademische Verlagsgesellschaft Athenainon, 1924. (*Handbuch der Literaturwissenschaft, edited by Oskar Walzel.*)

The work deals with linguistic problems only in the most incidental fashion. However, what we see of the ancient Greek language, is seen so largely through the refracting medium of literature, that no discussion of Greek literary problems can fail to interest the linguist, least of all one as attractive and suggestive as that before us. Consequently a brief notice of the work seems not out of place.



It is a discussion (magnificently printed and superbly illustrated) of Hellenic poetry beginning with the predecessors of Homer and closing with the Evangelists. For poetry is here defined by its contents and not by metric form. The treatment consists largely of aesthetic appreciations, and is addressed to a circle wider than that of professional scholars; but it is one from which professionals too may learn. For we have here not stereotyped opinions, but personal reactions based on an intimate acquaintance gained through the author's detailed investigations in the field, especially in the drama, the epos, and the saga.

G. M. BOLLING

## NOTES AND PERSONALIA

ARCHIV ORIENTÁLNÍ is the title of a promising new journal the first number of which appeared in March, 1929, under the editorship of B. Hrozný, with the coöperation of a group of other scholars.

This journal, which is to appear three times a year, is one of the first fruits of the Czechoslovak Oriental Institute established by a munificent endowment of President Masaryk of the Czechoslovak Republic, on the seventieth anniversary of his birthday, to start and maintain scientific and economic relations with the Orient. Its pages are open to articles and reviews written by any scholar in oriental studies, without regard to his place of residence or his nationality, the permissible languages being English, French, and German. All three languages are represented in the present issue, which contains five articles, two short notes, and two reviews; in all, 90 pages. Manuscripts offered for publication should be sent to Prof. Dr. B. Hrozný, Praha XVIII, Vořechovka 285; books and periodicals for review should be sent to Orientální Ústav (Archiv Orientální), Praha. The subscription price is \$3 per annum.

PROFESSOR A. V. WILLIAMS JACKSON, as the duly appointed delegate of the Linguistic Society of America, attended the twenty-fifth anniversary meeting of the American Academy of Arts and Letters, held in New York, April 23 and 24, 1929. A distinguished gathering of men and women was present, and the Academy awarded three gold medals. The medal for excellence in literature and arts was awarded to Edith Wharton. The two other awards have an interest also from the standpoint of spoken language, since the gold medal for excellence in stage diction was awarded to Julia Marlowe, and the gold medal for excellence in radio diction, awarded for the first time, was given to Milton J. Cross of the National Broadcasting company.

JAMES RENWICK RODGERS, a Foundation Member of the Linguistic Society of America, died on April 13, 1929, at Bryn Mawr, Penna., in his seventy-second year.

Mr. Rodgers was born in Philadelphia and received his education in that city, at the Faries Classical Institute and the University of Pennsyl-

vania, from which, many years later, he received the baccalaureate degree as of the Class of '78, to which he had belonged while in college. By profession he was an insurance broker, but by avocation a student of Greek, especially of the New Testament, on the reading of which, in the original, he spent much of his free time. Because of this interest he became a member of the LINGUISTIC SOCIETY at the time of its formation, and he remained a faithful and enthusiastic member until the time of his death.

HARDIN CRAIG, formerly Professor of English at the State University of Iowa, is now at Stanford University.

J. ALEXANDER KERNS, until recently at Whitman College, has gone to New York University as Instructor in Classics.

MILMAN PARRY, of Drake University, has accepted a call to Harvard University as Instructor in Classics.

GUENTER K. WAGNER is pursuing studies in anthropology and linguistics at the University of Berlin.

A. J. FRIEDRICH ZIEGLSCHMID goes this month to the State University of Iowa as Assistant Professor of German. He received the degree of Doctor of Philosophy at Northwestern University in June, 1929, and his doctoral dissertation, *Zur Entwicklung der Perfektumschreibung im Deutschen*, will appear as No. 6 in the series of *Language Dissertations* published by the LINGUISTIC SOCIETY OF AMERICA.

EDGAR A. MENK, until recently Associate Professor of Classical Languages and Literatures at the University of North Dakota, has gone to the Ball State Teachers College, Muncie, Indiana.

THE FOLLOWING NEW MEMBERS have been received into the LINGUISTIC SOCIETY OF AMERICA, subsequent to the last published list, and up to June 21:

Prof. Benjamin P. Bourland, 11105 Euclid Ave., Cleveland, Ohio.  
(Romance Langs., Adelbert Coll.)

Mr. Lyman R. Bradley, New York Univ., Washington Square East,  
New York City. (German)

- Prof. Romanus F. Butin, Catholic Univ., Washington, D. C. (Oriental Langs.)
- Miss Lou W. Conklin, Box 423, Roslyn, N. Y. (Comp. Ling.)
- Prof. Wilbur E. Gilman, 1323 Wilson Ave., Columbia, Mo. (English, Univ. of Missouri)
- Mr. Eugene Gottlieb, 1450 Jesup Ave., Apt. 6 D, New York City. (Indo-European Ling.)
- Mr. Zellig S. Harris, 5601 Diamond St., Philadelphia, Pa.
- Mr. Maurice Hicklin, P. O. Box 892, Arcata, Humboldt Co., California. (Eng. and Journalism, Humboldt State Teachers Coll.)
- Miss Grace A. Hill, College of the City of Detroit, Detroit, Mich. (Head of French Dept.)
- Rev. P. Michael Hlavčák, O.S.B., St. Vincent Archabbey, Latrobe, Pa. (Prof. of Latin, Greek, Slovak)
- Dr. E. J. Johns, 149 Greenwich Ave., Greenwich, Conn. (Spanish, Univ. of Florida)
- Prof. Edwin Lee Johnson, College Hall, Vanderbilt Univ., Nashville, Tenn. (Latin and Greek)
- Prof. Marguerite E. Jones, Hunter College, Park Ave. and 68th St., New York City. (Dept of Speech)
- Mr. Edwin O. Koch, 1010 E. Kankakee St., Keokuk, Ill. (Latin)
- Miss Lydia Palmerini, Hunter College, Park Ave. and 68th St., New York City.
- Mr. Leon P. Smith Jr., Univ. of Chicago, Chicago, Ill. (Romance Langs.)
- Mr. Luzerne L. Stirling, 160 Alden Ave., New Haven, Conn. (Classics)
- Prof. Pauline Taylor, New York Univ., Washington Square, New York City. (French)
- Mr. Benjamin L. Whorf, 320 Wolcott Hill Road, Wethersfield, Conn. (Mexican Langs. and General Linguistics)
- Prof. A. J. Friedrich Zieglschmid, State Univ. of Iowa, Iowa City, Iowa. (German)

## BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on 'the advancement of the scientific study of language'.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

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## THE STATUS OF LINGUISTICS AS A SCIENCE<sup>1</sup>

E. SAPIR

UNIVERSITY OF CHICAGO

[The long tried methods of Indo-European linguistics have proved themselves by the success with which they have been applied to other fields, for instance Central Algonkian and Athabaskan. An increasing interest in linguistics may be noted among workers in anthropology, culture history, sociology, psychology, and philosophy. For all of them linguistics is of basic importance: its data and methods show better than those of any other discipline dealing with socialized behavior the possibility of a truly scientific study of society. Linguists should, on the other hand, become aware of what their science may mean for the interpretation of human conduct in general.]

Linguistics may be said to have begun its scientific career with the comparative study and reconstruction of the Indo-European languages. In the course of their detailed researches Indo-European linguists have gradually developed a technique which is probably more nearly perfect than that of any other science dealing with man's institutions. Many of the formulations of comparative Indo-European linguistics have a neatness and a regularity which recall the formulae, or the so-called laws, of natural science. Historical and comparative linguistics has been built up chiefly on the basis of the hypothesis that sound changes are regular and that most morphological readjustments in language follow as by-products in the wake of these regular phonetic developments. There are many who would be disposed to deny the psychological necessity of the regularity of sound change, but it remains true, as a matter of actual linguistic experience, that faith in such regularity has been the most successful approach to the historic problems of language. Why such regularities should be found and why it is necessary to assume regularity of sound change are questions that the average linguist is perhaps unable to answer satisfactorily. But it does not follow that he can expect to improve his methods by discarding well tested hypotheses and

<sup>1</sup> Read at a joint meeting of the LINGUISTIC SOCIETY OF AMERICA, the AMERICAN ANTHROPOLOGICAL ASSOCIATION, and Sections H and L of the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, New York City, December 28, 1928.

throwing the field open to all manner of psychological and sociological explanations that do not immediately tie up with what we actually know about the historical behavior of language. A psychological and a sociological interpretation of the kind of regularity in linguistic change with which students of language have long been familiar are indeed desirable and even necessary. But neither psychology nor sociology is in a position to tell linguistics what kinds of historical formulations the linguist is to make. At best these disciplines can but urge the linguist to concern himself in a more vital manner than heretofore with the problem of seeing linguistic history in the larger framework of human behavior in the individual and in society.

The methods developed by the Indo-Europeanists have been applied with marked success to other groups of languages. It is abundantly clear that they apply just as rigorously to the unwritten primitive languages of Africa and America as to the better known forms of speech of the more sophisticated peoples. It is probably in the languages of these more cultured peoples that the fundamental regularity of linguistic processes has been most often crossed by the operation of such conflicting tendencies as borrowing from other languages, dialectic blending, and social differentiations of speech. The more we devote ourselves to the comparative study of the languages of a primitive linguistic stock, the more clearly we realize that phonetic law and analogical leveling are the only satisfactory key to the unravelling of the development of dialects and languages from a common base. Professor Leonard Bloomfield's experiences with Central Algonkian and my own with Athabaskan leave nothing to be desired in this respect and are a complete answer to those who find it difficult to accept the large scale regularity of the operation of all those unconscious linguistic forces which in their totality give us regular phonetic change and morphological readjustment on the basis of such change. It is not merely theoretically possible to predict the correctness of specific forms among unlettered peoples on the basis of such phonetic laws as have been worked out for them—such predictions are already on record in considerable number. There can be no doubt that the methods first developed in the field of Indo-European linguistics are destined to play a consistently important rôle in the study of all other groups of languages, and that it is through them and through their gradual extension that we can hope to arrive at significant historical inferences as to the remoter relations between groups of languages that show few superficial signs of a common origin.

It is the main purpose of this paper, however, not to insist on what

linguistics has already accomplished, but rather to point out some of the connections between linguistics and other scientific disciplines, and above all to raise the question in what sense linguistics can be called a 'science'.

The value of linguistics for anthropology and culture history has long been recognized. As linguistic research has proceeded, language has proved useful as a tool in the sciences of man and has itself required and obtained a great deal of light from the rest of these sciences. It is difficult for a modern linguist to confine himself to his traditional subject matter. Unless he is somewhat unimaginative, he cannot but share in some or all of the mutual interests which tie up linguistics with anthropology and culture history, with sociology, with psychology, with philosophy, and, more remotely, with physics and physiology.

Language is becoming increasingly valuable as a guide to the scientific study of a given culture. In a sense, the network of cultural patterns of a civilization is indexed in the language which expresses that civilization. It is an illusion to think that we can understand the significant outlines of a culture through sheer observation and without the guide of the linguistic symbolism which makes these outlines significant and intelligible to society. Some day the attempt to master a primitive culture without the help of the language of its society will seem as amateurish as the labors of a historian who cannot handle the original documents of the civilization which he is describing.

Language is a guide to 'social reality'. Though language is not ordinarily thought of as of essential interest to the students of social science, it powerfully conditions all our thinking about social problems and processes. Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The fact of the matter is that the 'real world' is to a large extent unconsciously built up on the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached.

The understanding of a simple poem, for instance, involves not merely an understanding of the single words in their average significance, but

a full comprehension of the whole life of the community as it is mirrored in the words, or as it is suggested by their overtones. Even comparatively simple acts of perception are very much more at the mercy of the social patterns called words than we might suppose. If one draws some dozen lines, for instance, of different shapes, one perceives them as divisible into such categories as 'straight', 'crooked', 'curved', 'zigzag' because of the classificatory suggestiveness of the linguistic terms themselves. We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation.

For the more fundamental problems of the student of human culture, therefore, a knowledge of linguistic mechanisms and historical developments is certain to become more and more important as our analysis of social behavior becomes more refined. From this standpoint we may think of language as the *symbolic guide to culture*. In another sense too linguistics is of great assistance in the study of cultural phenomena. Many cultural objects and ideas have been diffused in connection with their terminology, so that a study of the distribution of culturally significant terms often throws unexpected light on the history of inventions and ideas. This type of research, already fruitful in European and Asiatic culture history, is destined to be of great assistance in the reconstruction of primitive cultures.

The values of linguistics for sociology in the narrower sense of the word is just as real as for the anthropological theorist. Sociologists are necessarily interested in the technique of communication between human beings. From this standpoint language facilitation and language barriers are of the utmost importance and must be studied in their interplay with a host of other factors that make for ease or difficulty of transmission of ideas and patterns of behavior. Furthermore, the sociologist is necessarily interested in the symbolic significance, in a social sense, of the linguistic differences which appear in any large community. Correctness of speech or what might be called 'social style' in speech is of far more than aesthetic or grammatical interest. Peculiar modes of pronunciation, characteristic turns of phrase, slangy forms of speech, occupational terminologies of all sorts—these are so many symbols of the manifold ways in which society arranges itself and are of crucial importance for the understanding of the development of individual and social attitudes. Yet it will not be possible for a social student to evaluate such phenomena unless he has very clear notions of the linguistic background against which social symbolisms of a linguistic sort are to be estimated.



It is very encouraging that the psychologist has been concerning himself more and more with linguistic data. So far it is doubtful if he has been able to contribute very much to the understanding of language behavior beyond what the linguist has himself been able to formulate on the basis of his data. But the feeling is growing rapidly, and justly, that the psychological explanations of the linguists themselves need to be restated in more general terms, so that purely linguistic facts may be seen as specialized forms of symbolic behavior. The psychologists have perhaps too narrowly concerned themselves with the simple psychophysical bases of speech and have not penetrated very deeply into the study of its symbolic nature. This is probably due to the fact that psychologists in general are as yet too little aware of the fundamental importance of symbolism in behavior. It is not unlikely that it is precisely in the field of symbolism that linguistic forms and processes will contribute most to the enrichment of psychology.

All activities may be thought of as either definitely functional in the immediate sense, or as symbolic, or as a blend of the two. Thus, if I shove open a door in order to enter a house, the significance of the act lies precisely in its allowing me to make an easy entry. But if I 'knock at the door', a little reflection shows that the knock in itself does not open the door for me. It serves merely as a sign that somebody is to come to open it for me. To knock on the door is a substitute for the more primitive act of shoving it open of one's own accord. We have here the rudiments of what might be called language. A vast number of acts are language acts in this crude sense. That is, they are not of importance to us because of the work they immediately do, but because they serve as mediating signs of other more important acts. A primitive sign has some objective resemblance to what it takes the place of or points to. Thus, knocking at the door has a definite relation to intended activity upon the door itself. Some signs become abbreviated forms of functional activities which can be used for reference. Thus, shaking one's fist at a person is an abbreviated and relatively harmless way of actually punching him. If such a gesture becomes sufficiently expressive to society to constitute in some sort the equivalent of an abuse or a threat, it may be looked on as a symbol in the proper sense of the word.

Symbols of this sort are primary in that the resemblance of the symbol to what it stands for is still fairly evident. As time goes on, symbols become so completely changed in form as to lose all outward connection with what they stand for. Thus, there is no resemblance between a piece of bunting colored red, white, and blue, and the United



States of America,—itself a complex and not easily definable notion. The flag may therefore be looked upon as a secondary or referential symbol. The way to understand language psychologically, it seems, is to see it as the most complicated example of such a secondary or referential set of symbols that society has evolved. It may be that originally the primal cries or other types of symbols developed by man had some connection with certain emotions or attitudes or notions. But a connection is no longer directly traceable between words, or combinations of words, and what they refer to.

Linguistics is at once one of the most difficult and one of the most fundamental fields of inquiry. It is probable that a really fruitful integration of linguistic and psychological studies lies still in the future. We may suspect that linguistics is destined to have a very special value for configurative psychology ('Gestalt psychology'), for, of all forms of culture, it seems that language is that one which develops its fundamental patterns with relatively the most complete detachment from other types of cultural patterning. Linguistics may thus hope to become something of a guide to the understanding of the 'psychological geography' of culture in the large. In ordinary life the basic symbolisms of behavior are densely overlaid by cross-functional patterns of a bewildering variety. It is because every isolated act in human behavior is the meeting point of many distinct configurations that it is so difficult for most of us to arrive at the notion of contextual and non-contextual form in behavior. Linguistics would seem to have a very peculiar value for configurative studies because the patterning of language is to a very appreciable extent self-contained and not significantly at the mercy of intercrossing patterns of a non-linguistic type.

It is very notable that philosophy in recent years has concerned itself with problems of language as never before. The time is long past when grammatical forms and processes can be naively translated by philosophers into metaphysical entities. The philosopher needs to understand language if only to protect himself against his own language habits, and so it is not surprising that philosophy, in attempting to free logic from the trammels of grammar and to understand knowledge and the meaning of symbolism, is compelled to make a preliminary critique of the linguistic process itself. Linguists should be in an excellent position to assist in the process of making clear to ourselves the implications of our terms and linguistic procedures. Of all students of human behavior, the linguist should by the very nature of his subject matter be the most relativist in feeling, the least taken in by the forms of his own speech.

A word as to the relation between linguistics and the natural sciences. Students of linguistics have been greatly indebted for their technical equipment to the natural sciences, particularly physics and physiology. Phonetics, a necessary prerequisite for all exact work in linguistics, is impossible without some grounding in acoustics and the physiology of the speech organs. It is particularly those students of language who are more interested in the realistic details of actual speech behavior in the individual than in the socialized patterns of language who must have constant recourse to the natural sciences. But it is far from unlikely that the accumulated experience of linguistic research may provide more than one valuable hint for the setting up of problems of research to acoustics and physiology themselves.

All in all, it is clear that the interest in language has in recent years been transcending the strictly linguistic circles. This is inevitable, for an understanding of language mechanisms is necessary for the study of both historical problems and problems of human behavior. One can only hope that linguists will become increasingly aware of the significance of their subject in the general field of science and will not stand aloof behind a tradition that threatens to become scholastic when not vitalized by interests which lie beyond the formal interest in language itself.

Where, finally, does linguistics stand as a science? Does it belong to the natural sciences, with biology, or to the social sciences? There seem to be two facts which are responsible for the persistent tendency to view linguistic data from a biological point of view. In the first place, there is the obvious fact that the actual technique of language behavior involves very specific adjustments of a physiological sort. In the second place, the regularity and typicality of linguistic processes leads to a quasi-romantic feeling of contrast with the apparently free and undetermined behavior of human beings studied from the standpoint of culture. But the regularity of sound change is only superficially analogous to a biological automatism. It is precisely because language is as strictly socialized a type of human behavior as anything else in culture and yet betrays in its outlines and tendencies such regularities as only the natural scientist is in the habit of formulating, that linguistics is of strategic importance for the methodology of social science. Behind the apparent lawlessness of social phenomena there is a regularity of configuration and tendency which is just as real as the regularity of physical processes in a mechanical world, though it is a regularity of infinitely less apparent rigidity and of another mode of apprehension on our

part. Language is primarily a cultural or social product and must be understood as such. Its regularity and formal development rest on considerations of a biological and psychological nature, to be sure. But this regularity and our underlying unconsciousness of its typical forms do not make of linguistics a mere adjunct to either biology or psychology. Better than any other social science, linguistics shows by its data and methods, necessarily more easily defined than the data and methods of any other type of discipline dealing with socialized behavior, the possibility of a truly scientific study of society which does not ape the methods nor attempt to adopt unrevised the concepts of the natural sciences. It is peculiarly important that linguists, who are often accused, and accused justly, of failure to look beyond the pretty patterns of their subject matter, should become aware of what their science may mean for the interpretation of human conduct in general. Whether they like it or not, they must become increasingly concerned with the many anthropological, sociological, and psychological problems which invade the field of language.

## WORDS FOR WORLD, EARTH AND LAND, SUN

BY CARL DARLING BUCK

UNIVERSITY OF CHICAGO

[Three sample items from a projected Dictionary of selected Indo-European synonyms described in the Introductory Note.]

### INTRODUCTORY NOTE

For the student of linguistic history work of this kind has its intrinsic linguistic interest and needs no further justification for its pursuance. It brings out the loss of old words, the substitution of others, the shifts in meaning, and the resulting dislocations in vocabulary. With some exceptions (the numerals, words of close family relationship, and others here and there), a group of IE synonyms has little resemblance to a group of IE formal cognates, such as we find in the etymological dictionaries. The disparity, though less, is considerable within the Romance languages, or the Germanic, or even the Slavic.

But such investigation may also claim a wider interest as a contribution to the history of ideas. The kind of thinking that distinguishes man from brute has been built up by and is dependent upon the use of symbols, and, since vocal utterance has prevailed over gesture, these symbols are the words, the names of objects, actions, qualities, etc. In the views now prevailing among psychologists, and by no means confined to those who call themselves behaviorists, thought is simply 'language behavior'. The 'idea', 'notion', 'concept', 'mental image', any one of which terms we may continue to use for the sake of brevity, is conceived as a pattern of reaction answering to a given stimulus, which is normally the word or group of words. It is this pattern of reaction, the application made by the speaker and understood by the hearer, that constitutes the meaning of a word.

The history of ideas is, then, embodied in the history of words used to express them. The study of synonyms, their etymology and semantic history, shows the various sources of a given concept, the trails of its evolution. That is, within the languages chosen for observation, and even in these with some limitations. We cannot pretend to be pene-

trating the mysteries of the earliest human speech, nor should we do so if it were feasible to include in the observation all the languages of the globe. But we can observe what has happened in a linguistic family of long and varied history, like the Semitic or our own Indo-European family. True, even here, there will be many words which reflect forms of the same meaning in the parent speech, and for which any further analysis is beyond our reach. Yet there is scarcely any group of synonyms which does not show at least some new expressions of known semantic origin. Or again, quite apart from the question of origin, the lists bring to one's attention the shifts in application of the same form and the frequently recurring associations, as for example between 'mountain' and 'woods, forest' or between 'mountain' and 'rock, stone.'

It is needless to remind the readers of *LANGUAGE* that this type of investigation is one that is familiar in numerous monographs, dissertations, and journal articles. A few of these deal with certain groups of synonyms in a non-Indo-European family, as Semitic or Finno-Ugrian. Most of them cover the Indo-European or some branch of it like the Romance or the Germanic languages. Some of those covering the general IE field are cited by Hirt, *Idg. Gram.* 1. 164, and the list could be considerably augmented. But such studies are scattered, and moreover cover but a small number of even the commonest concepts. Only if multiplied many thousand fold would they furnish the basis for an exhaustive linguistic history of ideas. A 'Dictionary of Ideas' (a title that would suggest to laymen the point of such studies) in a truly comprehensive sense is a dream.

Nevertheless some form of synthesis is worth attempting. The present plan is to work out a tentative and skeleton dictionary covering a limited number, perhaps a thousand, of representative groups of synonyms in the principal IE languages. Some of the minor IE languages, as Albanian and Armenian, and all modern forms of Indic and Iranian, are excluded from the survey, except for incidental mention, since to include them systematically would increase the labor out of all proportion to the results added.

Whoever deals with 'synonyms' has to face the fact that these are generally only roughly synonymous. Words from different languages do not often coincide in all their applications, they rarely cover quite the same ground. To treat every application separately, comparing words only in specific fully equivalent phrases, is a counsel of perfection which would so complicate matters as to wreck any comprehensive project. The combination of applications may be so nearly the same



for different languages that they are best united under one head, with indication, where required, of differentiation. Only from a study of the material in a given case can one decide, and then often doubtfully, whether it is better to combine it in one item or break it up into several. The difficulties and complications of this kind are illustrated in the discussion below of words for 'world' and for 'earth and land.'

The arrangement will be by semantically congeneric groups, like 'parts of the body, bodily functions', 'food and drink', 'dwelling', 'sense perceptions', 'emotions', 'quantity and number', etc.—so far as such grouping is feasible, otherwise with recourse to several 'miscellaneous' groups. A satisfactory complete classification along such lines is hopeless, so complex are the relations. Cf. the remarks of Jespersen, *Philosophy of Grammar* 33. The more ambitious attempts at a 'topical' or 'notional' classification, like Roget's *Thesaurus* or that given in Bally, *Traité de stylistique française*, vol. II, have proved of little practical help for our purpose. In the former work the parallelism of opposites and some of the minor subdivisions are convenient. But the main groups and larger subdivisions are so comprehensive as to have no obvious coherence. What may one not find under Matter (e.g. *hear, see*), Motion (e.g. *eat, food*), Volition (e.g. *clean*)!

Our own classification will also be an easy mark for criticism, and an alphabetical index according to the English words will be a necessary complement. But to abandon all classification because of its difficulties would be to sacrifice the advantages of a semantic grouping in the many cases where this is feasible and useful. There will be much that is frankly arbitrary both in the classification and in the selection of synonyms to be included.

The project is being carried on with the help of some paid assistance, provided for out of the research grant of the General Education Board to the University of Chicago, and the cooperation of colleagues, which will be acknowledged at the proper time. Much of the raw material has been gathered for upwards of a thousand items (some of these will be discarded and others substituted), and rough etymological notes prepared for a part. Dr. Preveden has worked especially on the Balto-Slavic material. Others whose mother tongue or special field of study is one or another of the languages cited have assisted in filling out the words from such languages on the blank form that is used for the tabular presentation.

The words listed in the tables are intended to be the most usual ex-

pressions of the given idea in the accepted written and spoken language.<sup>1</sup> But the choice is in some cases difficult, even the best informants and dictionaries disagreeing. To try to include all obsolete and dialectal forms would be folly, though such as come to one's attention and offer interesting parallels in semantic development may be mentioned. The specialist in any given language will always find facts of pertinent interest to supply. The existing monographs and others that may appear, dealing with the words for any given concept, may be turned to account by citation and brief statement of the results.

The standard etymological dictionaries and the journals are of course consulted, but to save space the references are, so far as possible, concentrated on the new Walde-Pokorny, *Vergleichendes Wörterbuch der indogermanischen Sprachen*, where other discussions are cited.

What has been accomplished thus far, though considerable, is a small matter compared to the necessary verification, study, and condensation which nearly every item requires and which must be done by one person. Where many an item is a proper subject for an elaborate monograph and yet must be treated here with some brevity, this is a slow process. No prediction is ventured as to rate of progress or accomplishment.

The items given below belong to a group comprising 'the physical world in its larger aspects', and are chosen to illustrate, the first two a complicated situation, the third a simple one which admits of brief treatment. For most of the words for 'sun' belong to the same etymological group, and a discussion of the distribution of the various grades of the root and the parallel suffixes is not required for the purposes of this enquiry.

### WORLD

Grk. κόσμος	Goth. <i>fairhwus</i> ,	Lith. <i>svietas</i>
NG κόσμος	<i>midjungards</i> ,	Lett. <i>pasaule</i>
	<i>manaseþs</i>	ChSl. <i>mirŭ, světŭ</i>
Lat. <i>mundus</i>	ON <i>heimr, verqld</i>	SCr. <i>svijet</i>
It. <i>mondo</i>	Dan. <i>verden</i>	Boh. <i>svet</i>
Fr. <i>monde</i>	Swed. <i>verld</i>	Pol. <i>świat</i>

<sup>1</sup> For Modern Greek (abbr. NG) the words of most interest are those of the spoken language (*δημοτική*) and the new literary type based thereon. But ancient words prevailing in the *καθαρεύουσα* and still considerably used beside the more colloquial are also cited. As it happens, in the three items discussed here the ancient words are still colloquial as well as literary.

Sp. <i>mundo</i>	OE <i>middangeard</i> ,	Russ. <i>mir</i> , <i>svět</i>
Rum. <i>lume</i>	<i>weorold</i>	
	ME <i>world</i> , <i>world</i>	Skt. <i>loka-</i> , <i>jagat-</i> , <i>bhū-</i>
Ir. <i>domun</i> , <i>sāigul</i> ,	NE <i>world</i>	<i>bhuvana-</i> , etc.
<i>bith</i>	Du. <i>wereld</i>	Av. <i>gaēpā-</i> , <i>anhū-</i>
NIr. <i>domhan</i> ,	OHG <i>mittilgart</i> ,	
<i>saoghal</i> , <i>bith</i>	<i>weralt</i>	
Welsh <i>byd</i>	MHG <i>werlt</i>	
Bret. <i>bed</i>	NHG <i>welt</i>	

'World' is considered here primarily as the common comprehensive term for the physical world, so far as it lies within the knowledge of the unsophisticated man, namely 'the heavens above and earth beneath.' But other applications are inextricably bound up with its history. From the manifold uses of the NE *world* (which fill some thirteen columns in the NED), we may note three main types as of especial importance in the discussion, namely:

- a) the physical world in the broadest sense, the universe<sup>2</sup>
- b) the known world ('the highest mountain in the world'), the earth with all that belongs to it, especially the inhabited earth, mankind ('the world knows')
- c) life on earth, worldly life, this world, in contrast to the spiritual.

Most of the words listed above are used in all these senses. Where it is necessary to differentiate them for a given language or period, this will be indicated by *a*, *b*, *c* respectively. The etymology and in some cases the known history of these words show that the semantic development may have proceeded from any of these spheres of usage.

More specifically their semantic sources may be summarized, with references to the notes below, as follows:

Orderly arrangement (1, 2)	Existence (15, 17)
Open space (13)	Life (5, 6, 16)
Foundation (4)	Movement, life (14)
Under the sun (10)	Light, life (12)
Mid-enclosure (8)	Age, generation (3, 9)
Abode, home (7)	Peace (11)

<sup>2</sup> To distinguish more specifically the broadest sense, the common words for 'world' have been partly replaced in technical language by other terms, as, for example, Lat. *universum*, Fr. *univers*, NHG *weltall*, Russ. *vselennaja* (lit. 'all-ness'), Boh. *ves-mir* (lit. 'all-world', SCr. *svemir* (lit. 'all-world')). These will not be included in the discussion.

1. Grk. *κόσμος* means properly 'order', 'orderly arrangement' as commonly in Homer (whence also *κοσμέω* used in Homer of marshalling troops, and from this again *κοσμήτωρ λαῶν* 'leader of the people'). A frequent secondary meaning is 'ornament, decoration, dress'. In Crete *κόσμος* designated an official ruling body (collective) and later a single official.

The early philosophers, Pythagoras first according to the frequently repeated tradition, applied this term to the universe as an 'orderly arrangement' in contrast to primeval chaos. It was used either of the universe as observed from the earth, the starry firmament, the heavens (e.g. *ὁ περὶ τὴν γῆν ὅλος κόσμος* Aristotle), and this was probably its earliest application; or it was used of the universe including the earth, the whole world, and this became its normal meaning.

But for the world of people, the inhabited earth, the classical phrase was *ἡ οἰκουμένη* (γῆ). Not until Hellenistic times is *κόσμος* used in this sense. In the New Testament it is common, beside occasional *οἰκουμένη*. Cf. Math. 4. 8 *πάσας τὰς βασιλείας τοῦ κόσμου* = Luke 4.5.... *τῆς οἰκουμένης*. It is also used for this world, worldly life, for which however the more frequent expression is *αἰών*. Cf. Mark 4. 19 *αἱ μέριμναι τοῦ αἰῶνος*, but 1. Cor. 7. 33 *μεριμνᾷ τὰ τοῦ κόσμου*. So *κόσμος* finally comes to cover all the main senses of 'world', noted above as *a*, *b*, *c*. So NG *κόσμος*, with rich idiomatic use like that of NE *world* or Fr. *monde*.

2. Lat. *mundus* is the result of semantic borrowing, starting as a literary imitation of Grk. *κόσμος*. It is the same word as *mundus* used of a woman's 'ornaments, dress', this being related to the adj. *mundus* 'clean, elegant'. This was a synonym of Grk. *κόσμος* in one of its frequent uses (see above), one that was probably more familiar to the Romans than that of 'order'. Hence the Roman writers used *mundus* also as the equivalent of *κόσμος* in both its applications to the physical world as noted above, namely the 'firmament, vault of the heavens' (*mundus caeli*, Ennius, *mundi lumina*, Verg., etc.; hence also the underground *mundus* in the forum), and 'universe, world'.<sup>3</sup> Hence also for 'mankind',

<sup>3</sup> This view of Lat. *mundus* is, I think, beyond any reasonable doubt, but it is not universally accepted. It has been objected that in the earlier quotable occurrences the meaning is 'heavens', while that of 'universe' is later. Even if this is not accidental, this is no valid objection, in view of the use of *κόσμος* stated above. The separation of this *mundus* and its derivation from *moveo* (so Varro, Isidore, and recently Muller, *Altitalisches Wtb.* 277, *mouendos*) is uncalled for and unlikely. Pliny's words, 'nam quem *κόσμος* Graeci nomine ornamenti appellaverunt, eum nos a perfecta absolutaque elegantia, mundum', show just that understanding of *κόσμος* which accounts for the Roman use of *mundus*.

mostly poetical, and in ecclesiastic for this 'world' (beside *saeculum*). It has furnished the common words for 'world' in all the Romance languages (Fr. *monde*, etc.), except Rumanian, where *lume* 'light' (Lat. *lūmen*) is also used for 'world', owing to familiarity with the Slavic *světŭ*, which is both 'light' and 'world' (below, 12).

3. Lat. *saeculum* 'age, generation' is used in ecclesiastic writings, like Grk. *αἰών*, of 'this world, worldly life', and this use of it for 'world' in sense *c* has been of greater moment in the history of words for 'world' than would appear from Romance only. The Romance derivatives, Ital. *secolo*, Fr. *siècle*, Sp. *siglo*, are still used in this special sense, and examples occur of their use for 'world' in the wider sense, as Ital. 'il Creatore dell' universo secolo' (quoted in Tomaseo-Bellini). But they have never become serious rivals of the descendants of *mundus*. Lat. *saeculum* is the source of Ir. *sāigul*, NIr. *saoghal*, which is the normal word for 'world' in sense *c*, and is freely used for 'world' in sense *b* beside *domhan*. Thus *an saoghal mōr* or *an domhan mōr* 'the whole world, everybody'. 'Domhan and saoghal are interchangeable in general references to the world we live in' (Dinneen, *Irish-English Dictionary*, new ed.).

Lat. *saeculum* is also probably the indirect source of the present Germanic words for 'world', of which NE *world* is representative. See below.

4. OIr. *domun*, NIr. *domhan*, 'world' in senses *a* and *b* (beside *saoghal* in senses *b* and *c*, see above) is from \**dub-no-* (cf. Gall. *Dubnoreix* on coins, *Dumnorix* in Caesar, lit. 'world-king'), cognate with ChSl. *duno* (*n* from *bn*) 'bottom, foundation', OIr. *domain*, NIr. *domhain* 'deep', NE *deep*, etc. The development was from 'bottom, foundation' to 'earth' (as in Rum. *pămînt* 'earth' from Lat. *pavimentum*), then used in a more comprehensive sense than the usual word for earth (Ir. *talam*, NIr. *talamh*), namely as 'inhabited earth, world'.

5. Welsh *byd*, Bret. *bed*, both used for world in all senses, Ir. *bith* 'life, existence', also 'world' in senses *b* and *c*, are from a Celtic \**bi-tu-* (cf. Gall. *Bitu-riges*), derived from IE \**g<sup>w</sup>ei-* 'live' (cf. Grk. *βίος* 'life', Skt. *jīva-* 'living', Lat. *vīvus*, etc.). Cf. Av. *gaēpā-* (below, 16) from the same root.

6. Goth. *fairhwus*, the commonest rendering of *κόσμος*, is cognate with Crimean Goth. *fers* 'man' and ON *fjor*, OE *feorh*, OHG *ferah*, all meaning 'life'.

Goth. *manaseps*, a compound meaning 'seed of man', renders *κόσμος* 'world of people, mankind'.



Goth. *midjungards* (see below, 8) renders *οικουμένη* when this is used instead of the usual *κόσμος*.

7. ON *heimr* 'abode', cognate with OE *hām*, NE *home*, is the usual word for 'world' in the broadest sense.

8. Goth. *midjun-gards*, ON *mid-garðr*, OE *middan-geard*, OHG *mittin-gart*, *mittil-gart*, (lit. 'mid-yard, mid-enclosure'), represent a term of Germanic mythology denoting the earth as the abode of man, as pictured in the Edda (cf. Vigfusson-Cleasby and Fritzner s.v. *mid-garðr*). OE *middan-(g)earð* is used likewise for the inhabited earth, but also for 'world' in the broadest sense. In the OE gospels it is the common word for world (so in numerous passages in John), and Aelfric gives it as the equivalent of Lat. *mundus*. So also OHG *mittilgart* is the regular translation of *mundus*.

9. ON *veröld*, OE *weorold*, OHG *weralt* represent a compound of a word for man (cf. NE *wer-wolf*, Lat. *vir*, etc.) and a noun form of *old*, hence 'age of man'. This is the equivalent of, and probably a translation of Lat. *saeculum* in its ecclesiastical use (above, 3). For the early period this is the prevailing use, e.g. in the OE gospels, Math. 12.32 *ne on þisse worulde ne on þære toweardan* 'neither in this world nor in that to come' (Grk. *αἰών*, Vulgate *saeculum*). The further development was from this sense *c* to sense *b* and eventually to sense *a*, until the words in question became the common expressions for 'world' in all senses in all the Germanic languages.

10. Lett. *pasaule*, a compound of *pa-* 'under' and *saule* 'sun', is 'world' in all senses. In Lithuanian also dial. *pasaule* in this sense, but the regular expression is *svietas*, a Slavic loanword.

In Slavic there are two rival words for 'world', both still in common use in Russian, and both so used in dialects or older records of other Slavic languages.

11. ChSl. *mirŭ*, the regular translation of Grk. *κόσμος* in the gospels, is the same word as *mirŭ* 'peace', used in Christian terminology as a collective, 'community of peace' (cf. Russ. *mir* 'village, community'), 'mankind', 'world'.

12. ChSl. *světŭ* 'light' is used once in the gospels to translate Grk. *αἰών* 'age, life' (Math. 13. 22, 'the cares of this world'). The semantic development was from 'light' to 'life', 'world' in sense *c*, later 'world' in all senses, as in the present Slavic languages.

The Slavic word is the direct source of Lith. *svietas*, and the indirect source of Rum. *lume* 'world'. See above, 2.

13. Skt. *loka*- 'openspace', cognate with Lat. *lūcus* 'grove', then 'earth', 'world'.

14. Skt. *jagat*, from *gam*- 'go', hence 'that which moves, lives', then 'all creation', 'world'.

15. Skt. *bhū*-, *bhuvana*-, from *bhū*- 'be', hence 'existence, creation, earth, world'.

16. Av. *gaēpā*-, from the root of *gaya*- 'life', *jīva*- 'living' (Skt. *jīva*-, Lat. *vīvus*, etc.), 'life, mankind, world'.

17. Av. *ayhu*-, from *ah*- (Skt. *as*-, etc.), hence 'existence, life, mankind, world'.

## EARTH AND LAND

Grk. γῆ, χθών (poet.)	Goth. <i>airþa</i> , land	Lith. <i>žeme</i>
NG γῆ	ON <i>jord</i> , land	Lett. <i>zeme</i>
	Dan. <i>jord</i> , land	ChSl. <i>zemlja</i>
Lat. <i>terra</i> , <i>tellus</i>	Swed. <i>jord</i> , land	SCr. <i>zemlja</i>
(poet.)	OE <i>eorþe</i> , land	Boh. <i>země</i>
It. <i>terra</i>	ME <i>erthe</i> , land	Pol. <i>ziemia</i> , <i>ląd</i>
Fr. <i>terre</i>	NE <i>earth</i> , land	Russ. <i>zemlja</i>
Sp. <i>tierra</i>	Du. <i>aarde</i> , land	
Rom. <i>pământ</i> , <i>țară</i>	OHG <i>erda</i> , land	Skt. <i>bhū</i> -, <i>bhūmi</i> -, <i>prthivī</i> -, <i>mahī</i> -, etc.
	MHG <i>erde</i> , land	
Ir. <i>talam</i> , <i>tīr</i>	NHG <i>erde</i> , land	Av. <i>zam</i> -, <i>būmi</i> -, OP <i>būmi</i> -
NIr. <i>talamh</i> , <i>tīr</i>		
Welsh <i>daiar</i> , <i>tir</i>		
Bret. <i>douar</i>		

The various ideas expressed by *earth* and *land* are frequently covered by the same word, and where different words are employed their uses overlap. We may distinguish here:

a. The whole earth, as distinguished from sun, moon, etc. Commonly expressed by the same words that are used in the following senses, and representing a relatively later conception. Special terms may be introduced to distinguish this sense, as (from the present state of knowledge) words meaning 'globe, sphere', or compounds like NHG *erdkreis*, *erdreich*. But these do not displace the common words, and are not considered further here.

Since the earth is felt as the known world, words for 'earth' in this sense and 'world' may overlap in use ('the highest mountain in the world' = 'on earth'), and some of the words discussed under 'world'

belong here not only in origin, but also in actual use. So regularly ON *midgarðr*, OSax. *middilgard*, and frequently OE *middangeard*, OHG *mittilgart*.

b. The solid surface of the earth, viewed as a surface or foundation. One lies 'on the earth' or more commonly 'on the ground'. Thus this sense may also be expressed by words meaning 'bottom, foundation', as Grk. *ῥεῖρα*, Lat. *solum*, NE *ground*, Dan., Sw. *grond*, NHG *grund*, *boden*, Du. *bodem*, Boh. *puda*, etc.

c. The solid surface of the earth in contrast with that which is covered with water, now regularly *land*. This sense is in some languages commonly expressed more specifically as 'dry (land)', as NG. *ξηρά* (*ξηρά*), Rum. *uscat* (from adj. *uscat* 'dry'), Lith. *sausžemis* (*sausas* 'dry' and *žeme*).

d. The softer part of the earth's surface, as the source of vegetation, (good) *land*, *soil*, or *ground*. This sense may also be expressed more specifically by derivatives, as It. *terreno*, *terricio* ('loam'), Fr. *terroir*, Sp. *terreno*; or with extension from sense b, as NE *ground*, *soil*, NHG *boden*, etc. It is the primary sense of OE *molde* 'soil' (NE *mould* still used in England for 'loam'), Dan. *muld*, Sw. *mull* 'loam' (Goth. *mulda* 'dust'), derived from \**mel-* 'crush, grind'; so Skt. *mṛd-* 'soil, clay' (and *mṛttika-*) from *mṛd-* 'crush', an extension of the same root. NE *loam*, now used for a special kind of soil, is from OE *lām* 'clay, mud', cognate with NHG *lehm* (from LG), Dan. *ler*, etc., all meaning properly 'clay'.

e. The same as material in general. This may be expressed by the common words for 'earth' (cf. NE *earthenware*), more often by special words for a particular kind of earth, like NE *clay*, NHG *ton*, Fr. *argile*, etc.

f. A definite portion of the earth's surface, from the *land* of an individual to a whole country ('the land of Egypt').

The association between these various senses is such that any one of them may be the starting point of an extension to some or all of the others.

Thus Lat. *terra* according to its etymology started with sense c, but was used in all the above senses.

This was replaced in Rumanian, in most of its uses, by *pământ*, starting from sense b. A similar but less far reaching extension from sense b is seen in Lat. *solum* 'bottom, ground', often used in sense f, and in the quotable uses of NE *ground* (senses b, d, f, c, a; see NED). Sense b is also the probable or certain starting point for several of the

common words for earth (see below, under 1, 3, 4, 6). NE *mould*, OE *molde*, with sense *d* or *e*, is also quotable in senses *a* and *f* (NED).

Of the two Germanic words represented by NE *earth* and *land*, the latter started with sense *f*, as indicated by the etymology and the use in Gothic, but was at an early period extended to sense *c*, eventually displacing *earth*, etc. which were once freely used in this sense. In English, on the other hand, *land* in a part of its earlier uses is mostly displaced by *country*.

The words listed in the table and discussed below are the common words of broad scope which cover substantially the same ground as NE *earth* and *land*. Words that may be substituted or are even more common in some of the senses, as NE *ground*, *soil*, *country*, Grk. *χώρα*, NG *χωμα* are not included in the table, and are discussed only incidentally.

1. The most wide-spread etymological group, pointing to an IE word (\**ǵhem-* with some complicated phonetic variants) for 'earth', probably in sense *b*, is that which furnishes the common word for 'earth, land' in all senses in the Balto-Slavic languages and Iranian, e.g. Lith *žeme*, ChSl. *zemlja*, Av. *zam-* (so NP *zamīn*, but OP *būmi-*). Here also probably Alb. *dhē* 'earth, land'. The cognates in other languages are among the less common words and are used prevailing in sense *b*. So Vedic *kṣam-* (also gen. sg. *gmas*, *jmas*) with sense *b*, especially in contrast to *div-* 'sky'. Grk. *χθών* poetical and mainly in sense *b*, but also in sense *a* and *f*. Cf. *χαμαί* 'on the ground', *χαμαλός*, *χαμηλός* 'lying on the ground, low'. Lat. *humus* regularly in sense *b*, sometimes in sense *d*, poetically also in sense *f*. Cf. Lat. *humilis* 'low', Umbr. *hondra* 'below', etc.

There is no clear further derivation from any known verbal root, but the facts of usage indicate as the earliest attainable meaning that of the low-lying surface of the earth in contrast to the sky above. Cf. also the derivatives *homō*, Goth. *guma* 'man', from the notion of 'earthly' in contrast to the 'heavenly' gods.

Lat. *terra* from \**tersā*: *torreō* 'dry up, parch' Grk. *τέρσσαι* 'dry up', Goth. *ga-pairsan* 'to dry up, wither', Skt. *trṣ-* 'to thirst', NE *thirst*, etc. Its original meaning then was 'land' in sense *c*. Here belongs also, though of somewhat different formation (\**tēros?*), Ir. *tír* mainly 'land' in sense *f*, Welsh *tir* 'land' in senses *f* and *c*, and the now obsolete Breton *tir*.

The descendants of Lat. *terra* remain the usual words in all the Romance languages except Rumanian, where *țara* is now 'country' (part

of sense *f*, also 'country' vs. 'city'), otherwise displaced by *pamint*. See following.

3. Rum. *pamint* is from Lat. *pavimentum* 'floor, pavement'. Used first of the 'ground' (sense *b*), it became the common word for 'earth, land' in nearly all senses, namely *a*, *b* (but for *c* usually *uscat*, from adj. *uscat* 'dry'), *d*, *e*, and *f* in part (the 'land' of an individual, but *țara* for 'country').

4. OIr. *talam*, NIr. *talamh*, Lat. *tellus* (mostly poetical), are cognate with Skt. *tala-* 'surface, bottom, plain', ChSl. *tilo*, SCr. *ilo* 'bottom, ground'. Here also the starting point was sense *b*.

5. Welsh *daiar*, Bret. *douar* are of uncertain etymology. The forms are derivable from \**diyaro-* or \**disaro-*. Pedersen 1. 66 compares Arm. *ti-* in certain compounds as *ti-kin* 'queen' (*kin* 'woman'). Henry, *Lex. Bret.*, suggests derivation from the root \**dāi-* 'divide' (Grk. *δαλομαι*, etc.). In this case the development would be from 'portion' to 'piece of land', then extension from sense *f* to the others, as in the history of NE *land*.

6. The common Germanic word, Goth. *airþa*, Dan. *jord*, NE *earth*, NHG *erde*, etc. is cognate with an Irish *ert* 'land' occurring only in compounds (Stokes, *Bezz. B.* 25. 255), and with OHG *ero* 'earth', Grk. *ἔρα* attested by *ἔρας·γης* Hesych. and *ἔραζε* 'to the ground'. Other possible cognates including Arm. *erkir* 'earth', in Walde-Pokorny 1. 142. Any further root connection is uncertain, so that the semantic starting point remains obscure, though probably sense *b*.

7. The other important Germanic word, NE *land* etc., is cognate with a Celtic *land* in OIr. *ith-land*, NIr. *ioth-lann* 'threshing floor', M Welsh *llan* 'an enclosure, yard'. Its earliest use was in sense *f*, and in Gothic it is only so used, namely for 'piece of land' or 'country', *airþa* being used in all the other senses including 'land' in contrast to sea.

8. Grk. *γη*, Hom. *γαῖα*, is of unknown etymology, and perhaps of pre-Greek origin. The poetical *aīa* is also of doubtful etymology, but possibly 'the mother (earth)'. Cf. Brugmann, IF 15. 93 ff. NG *χώμα*, from ancient Grk. *χώμα* 'heap of earth, mound', (cf. *χοῦς* 'dust' in N. T.) is now 'earth' in senses *b* and *d*, and may also be used like NE *soil* in sense *f* (*σὲ κείνα ἄγρια τὰ χώματα*).

9. Skt. *bhūmi-*, OPers. *būmi-*, Av. *būmi-* (less common than *zam-*), are from *bhū-* 'become, exist', hence first used of the earth as the known world. Cf. Skt. *bhū-* 'world' and 'earth', *bhuvana-* 'world', etc. (above, under world).



Other common Sanskrit words for 'earth' are *prthivī* fem. of *prthu-* 'wide', *mahī* fem. of *mah-* 'great', *kṣiti-* properly 'abode', *vasu-dhā-* literally 'yielding good', etc.

## SUN

Grk. ἥλιος	(dial. ἡέλιος, ἄφέλιος, ἄλιος)	Goth. <i>sauil</i> , <i>sunno</i>	Lith. <i>saulė</i>
		ON <i>sōl</i> , <i>sunna</i>	Lett. <i>saule</i>
		Dan. <i>sol</i>	ChSl. <i>slŭnŭce</i>
NG ἥλιος		Swed. <i>sol</i>	SCr. <i>sunce</i>
Lat. <i>sōl</i>		OE <i>sunne</i> , <i>sōl</i>	Boh. <i>slunce</i>
It. <i>sole</i>		ME <i>sonne</i>	Pol. <i>skońce</i>
Fr. <i>soleil</i>		NE <i>sun</i>	Russ. <i>solnce</i>
Sp. <i>sol</i>		Du. <i>zon</i>	Skt. <i>suar</i> (Ved.), <i>sūr-</i>
Rum. <i>soare</i>		OHG <i>sunna</i>	<i>ya-</i> , <i>ravi-</i> , etc.
Ir. <i>grīan</i>		MHG <i>sunne</i>	Av. <i>hvar</i> , <i>xʷēng</i>
NIr. <i>grian</i>		NHG <i>sonne</i>	
Welsh <i>haul</i>			
Bret. <i>heol</i>			

IE *\*sāwel-*, *\*suel-*, *\*sul-*, *\*suen-*, *\*sun-*, from a root *\*sāu-* (presumably 'shine') with gradation and parallel *l-* and *n-* suffixes (the Slavic forms from *\*sulno-* with added dimin. suffix). Cf. Walde-Pokorny 2. 446. Here belong all the words listed except the following.

Ir. *grīan*, NIr. *grian*, from *\*greinā*, formed from the weak grade of IE *\*gʷher-* seen in words for 'hot, heat', as NIr. *gor*, NE *warm*, Grk. *θερμός*, Skt. *gharma-*, etc. Cf. especially Skt. *ghṛṇa-* 'heat' and 'sunshine'.

Skt. *ravi-*, perhaps the commonest classical word for 'sun', Arm. *arev* 'sun', belong with Skt. *aruṇa-*, *aruṣa-* 'reddish' (both often applied to the sun), Av. *auruša* 'white'. The further connection of these with Skt. *rudhira-* 'red', Lat. *ruber*, NE *red*, etc. is probable, though disputed. Cf. Walde-Pokorny 2. 359.

Among other Sanskrit words for 'sun' are: *bhānu-* from *bhā-* 'shine', *bhās-kara-*, lit. 'light-making', *dina-kāra-* lit. 'day-making', *arka-* from *arc-* 'shine'.

## SOME HITTITE WORDS

E. H. STURTEVANT

YALE UNIVERSITY

[Improvements in the interpretation of a Hittite document published by the author in *TAPA* 58. 5-31.]

In *Transactions of the American Philological Association* 58. 5-31 I published a Hittite ritual tablet with translation and commentary. Partly on account of suggestive letters received from A. Götze and E. Tenner, I am now able to make further progress with the interpretation and etymology of several words in that document.

*waggašnuanzi* (1. 9) 'they omit' is the causative of *waggari* 'is lacking', as I have shown (p. 19). There is also an active form, *waki*, which means 'removes' or the like. If it be objected that this leaves the *š* of *waggašnuanzi* unexplained, I would cite the causatives *hatkešnu* 'cause to be devastated' : *hatk-* 'overrun, devastate' (cf. Sommer, *Boghazköi-Studien* 7. 2<sub>2</sub>); *huišnu* 'cause to live' : *huitar* 'the animals' (cf. Sturtevant, *LANGUAGE* 3. 112 f.); *pahšnu* 'cause to protect', *pahš-* 'protect' : Sanskrit *pā-* 'protect'; *tekkuš(ša)nu-*, *tekkuš(š)a-* 'prove' : Latin *dico*, Greek *δῆκνυμι*, etc. Suffixes containing *s* are no less common in the Hittite verb than in the Indo-European, although they cannot be classified as aorist or present suffixes. Probably the familiar values of verbal stems in *s* were developed by Indo-European after the separation from Hittite. Indo-European also shows a formative *s* before the suffix *neu* in Skt. *dhr̥ṣṇoti* 'he dares' : *dhar-* 'hold, endure'.

With the active *waki* 'he removes' I would compare Lithuanian *vagiū* 'steal', and with the middle *waggari* 'is lacking' corresponds Lat. *vagor* 'wander', although both these verbs differ from the Hittite in present formation.

*uppeššaran* (1. 25) 'one sent, an addition to the company': this *a*-stem derivative of the neuter *uppeššar* 'a giving, a gift' appears again in 3. 34; *ma-an DUMU.SAL.ŠÚ up-pt-iš-ša-ri pa-a-i* 'and he gives it to his daughter, who has been added to the company' (correct my former translation accordingly). Such a shift to the personal gender and the *a*-declension from a neuter *r/n*-stem is not common in Hittite, where the

use of the *r/n*-stems is peculiarly vigorous. The only other case I know of is *šakuwaššar*, *šakuwaššaraš*, which seems to mean 'entire, regular' or the like.<sup>1</sup> Probably this word, like *upeššar*, was originally an abstract neuter noun. When they came to be used with personal nouns, they were felt as adjectives and were inflected according to the *a*-declension.

In the IE languages the *r/n*-stems have been transferred to the *o*-declension in considerable numbers. Frequently the new stem is based upon the form of the oblique cases with *n*, as in Lat. *somnus* beside *sopor* 'sleep', Church Slavonic *vesna* beside *ѡар* 'spring', Lith. *jeknos* (plural) beside *ѡпар* 'liver'. In a number of words a stem in *ro* is citable along side of a stem in *no*, and for these we may plausibly assume an original *r/n*-stem; e.g. Lat. *dōnum* : *δῶρον* 'gift', Lat. *dignus* : *decōrus* 'fitting', Skt. *arjunas* 'silver-white' : *ἄργυρος* 'silver', Old English *deall* 'shining' (from Germanic *\*dalna-*) : *θαλερός* 'blooming, vigorous'. Cf. Lat. *plēnus* : *πλήρης* 'full'.

*hukanzi* (2. 36): Friedrich, *Zeitschrift für Assyriologie* NF 4. 187 f., fn. 3, has shown that this verb means 'conjure, charm, bless', and my translation (p. 11) is to be corrected accordingly.

Probably the same root occurs in 1. 36, where, following Götze's suggestion, I would now read GIŠ *ha-hu-ki-eš-na-áš i-ya-u-e-ni*. Probably *hahukešnaš* is genitive of an abstract noun *\*hahukeššar* 'conjuring', so that the words just cited may mean, 'we make rods of conjuring (i.e. magic wands)'.

*memal* (3. 19): in view of *Keilschrift-Urkunden aus Boghazköi* 17. 23. 1. 9: ŠÁ GIŠ IN.BI.HI.A *me-ma-al* 'fruit-meal', ŠÁ LĀL at the beginning of this line should be taken with *memal* instead of with the preceding NINDA *nedeā*; ŠÁ LĀL *memal* must mean 'honey-meal', that is, meal mixed with honey. Götze, *Kleinasiatische Forschungen* 1. 228 f., fn. 4, doubts this interpretation of *memal*, because he thinks that it was originally based upon an etymology. But, no matter how averse to etymological arguments one may be, an attractive etymology does not invalidate an interpretation for which other reasons may be urged. I cannot think of anything but meal that would serve as food for men and for horses and that would naturally be sprinkled over sacrificial foods. Götze thinks that *memal* may be made from fruit or from honey, and, if so, it can scarcely be meal; but, as far as I can see, the conclusion is based solely upon the phrases discussed above, and they are certainly open to the interpretation which I have given. Meal mixed with honey or with fruit is not strange in a sacrifice.

<sup>1</sup> See Friedrich, *Staatsverträge des Hatti-Reiches in Hethitischer Sprache* 1. 90 f.

*meranda* (3. 27, 30), *merta* (3. 43), *mertu(m)* (3. 45), *merdu* (4. 5): since I felt compelled to interpret *šauwar* (3. 44, 4. 5) as an infinitive depending upon *merdu*, I translated the phrase 'cease to bind', and I assumed (p. 23) that this meaning of *mer-* had developed out of a primitive meaning 'fall', which I found in *meranda* and *merta*. The formation in *war*, however, is a verbal noun rather than an infinitive in the narrower sense; it never serves as the complement of another verb. Consequently *šauwar* must be an approximate synonym of *karpiš* and *kartimmiaz* (3. 40 f., 3. 44, 4.4 f.), as Tenner and Götze have suggested by letter.

Under these circumstances it is clear that *mer-* means 'die' rather than 'fall'. The three passages are to be translated as follows:

3. 26 ff.: And from the *terippiš* field they bring nine bits of gravel and dead limbs. And the bits of gravel he throws into the fire and above (them) he burns the dead limbs of the orchard.

3. 42 ff.: As these limbs have died for the farmer, just so fury, anger, (and) passion (?) shall die for thee.

4. 1 ff.: [Then] I quench (i.e. cool?) the bits of gravel with strong drink. [And thus I speak: "As these have dru[nk, just so] do thou, Innaraš SU.KUR, drink; and fury, [an]ger, and passion(?) shall die for thee."

Obviously the root *mer-* 'die' is identical with IE \**mer-* 'die'. We are therefore tempted to take *merta* as present middle, equivalent to Lat. *moritur*, etc. The context calls for past meaning, but the historical present is common in Hittite. The imperative *merdu*, however, must be active, and so it is safer to regard *merta* as preterit active (cf. *kuenta* 'he struck', *kuendu* 'let him strike').

Other corrections to be made in *TAPA* 58. 5-31 are these:

- p. 6. 14: for 'DA', read 'GIGIR'.
- 15: for 'UTUL', read 'URU.URŮ'. See Friedrich, *ZA* NF 1. 46 f.
- 16: for 'DAR.MI da-a-an', read 'šig-mi-da-a-an'.
- p. 7. 4: dele 'cloth of many colors (?)' and 'twine (?)'.
- 14: dele 'cloth of many colors (?)'. For 'table', read 'chariot'.
- 15: for 'gišMA.UTUL' read 'quiver'.
- 16: dele 'a second time'; for 'cloth of many colors', read 'woolen. . . .'
- 23: dele 'cloth of many colors (?)' and 'twine (?)'.
- p. 8. 25: for 'ŠĀG', read 'ŠĀG'.
- 26: for 'pí-eh-hu-da-an-zi', read 'pí-e-hu-da-an-zi'.
- 40: for 'T]IM', read 'T]IM'.
- 47: for '[ ]-kat-za-na-i', read '[na-áš šú]-un-na-i'.
- p. 9. 33: dele '(?)'.
- 36: for 'gate', read 'gates'.

- 38f.: for 'we', read 'they'.  
 40: for 'ga]te', read 'ga]tes'.  
 44: for 'they hold', read 'he holds'.  
 45f.: for 'išqari', read 'he sets up (?)'.  
 47: for '[ ]-katzanai', read '[and f]ills [them]'.  
 p. 10. 25: for 'SĪG', read 'SĪG'.  
 After line 26 draw a line across the page.  
 p. 12. 14: for 'ŠĀG', read 'ŠĀG'.  
 p. 13. 2: enclose the text in [ ].  
 12: for 'going', read 'unblemished (?)'.  
 p. 14. 21, 26: for 'ŠĀG', read 'ŠĀG'.  
 p. 16. 17: for 'pu-ki-eš-šar', read 'mu-ki-eš-šar'.  
 24: for 'ŠĀG', read 'ŠĀG'.  
 30: for 'ap-pu-uš', read 'a-pu-uš'.  
 38: for 'ŠŪ', read 'ŠU'.  
 p. 17. 17: for 'refuse', read 'complaint'.  
 p. 18: dele note on 1. 4.  
 p. 19: dele note on 1. 15.  
 p. 20. 37: read 'KĀ.GAL.TIM: KĀ.GAL = ABULLU 'city gate'. -TIM in Hittite texts may function quite mechanically as a sign of the plural. So Götze by letter.'  
 45: for 'išquari', read 'išqari'.  
 p. 22: dele note on 3. 32.  
 p. 25. 44: the first complete sign should be 𐎗.  
 p. 26: draw a line across the page after line 8.



## THE HYPOTHESIS OF THE ITALO-CELTIC IMPERSONAL PASSIVE IN *-r*.

EDITH FRANCES CLAFLIN

ROSEMARY HALL

[The untenability of Zimmer's hypothesis that the *r*-endings of Italic and Celtic come from an IE third plural active ending, which developed into an impersonal passive or 'man'-form.]

The hypothesis discussed in this paper has to do with such forms as Latin *agor, agitur, sequor, sequitur*, and similar forms in the Celtic languages. The verbal *r*-endings have long been recognized as a crux of Latin morphology. Charpentier, in his monograph on *Die verbalen r-Endungen der indogermanischen Sprachen*,<sup>1</sup> goes so far as to say that they constitute perhaps the most peculiar phenomenon in the realm of the Indo-European verbal system. Thurneysen<sup>2</sup> refers to the problem as the riddle of the Sphinx. The earliest explanation of these forms, proposed by Bopp<sup>3</sup> at a time when the Celtic languages had not yet been drawn into the circle of Indo-European speech, was to the effect that Latin *amatur*, for example, arose by appending the reflexive pronoun *se* to the active form *amat*, with the 'connecting vowel' *u* and rhotacism of intervocalic *s*. This explanation held the field till Whitley-Stokes pointed out<sup>4</sup> that the phenomenon of rhotacism is unknown to Celtic and also to Oscan. A convenient review of the earlier literature of the subject is found in the beginning of Windisch's well-known monograph *Ueber die Verbalformen mit dem Charakter R im Arischen, Italischen und Celtischen*.<sup>5</sup> The proved untenability of earlier theories left the way open for H. Zimmer<sup>6</sup> to develop his celebrated hypothesis

<sup>1</sup> *Skifter utgifna af K. Humanistiska Vetenskaps-Samfundet i Uppsala* 18.4. 3 (1917).

<sup>2</sup> Kuhn's *Zeitschrift f. vergl. Sprachforschung* 37. 92.

<sup>3</sup> *Grammaire Comparée des Langues Indo-Européennes*, traduite sur la deuxième édition par M. Bréal 3. §§476-7 (1869).

<sup>4</sup> 'Ueber das altirische Verbum', *Beitr. zur vergl. Sprachf.* 7. 56-7 (1871).

<sup>5</sup> *Abhandlungen d. sächs. Ges. d. W.* 10. 449-54 (1888).

<sup>6</sup> 'Über das italo-keltische passivum und deponens', *Kuhn's Zeitschrift* 30. 224-89 (1887).

of the impersonal passive, or 'man'-form, which may be briefly summarized as follows:<sup>7</sup>

The only Indo-European element is a third person plural *active* of conjunct inflection ending in *-r*. Out of this by a limitation in use to the impersonal there developed in Irish a partial passive inflection, and a complete active inflection ending in *-ar*—the so-called deponent. In Italic there arose on a similar basis a complete passive inflection of the present system; also, in Latin, an active inflection ending in *-ur*—the deponent. The Britannic dialects on the other hand retain to the present day the ancient *r*-form, with the ancient limitation in use to the impersonal.

Zimmer's theory is without doubt brilliant and original and it has had a very wide influence. Moreover, though the lapse of nearly forty years since his article appeared has naturally led to considerable modifications in his hypothesis, its influence is still pervasive.<sup>8</sup> It may be

<sup>7</sup> Cf. 268.

<sup>8</sup> E. Hermann, for example, after a thoroughly sound exposition of the development of the Latin passive and deponent from the IE middle (GGA 1918. 344-9) falls under the spell of the impersonal passive: 'Die Bedeutung der Formen ging vom Medium aus nach zwei Richtungen: zum Deponens, und zum Passivum. Letzterer Form erwuchs aber an dem *uns sonderbar anmutenden*, vielleicht auf unindogermanischer Syntax aufgebauten unpersönlichen "man"-Passivu mein Konkurrent' (p. 349, italics mine).

The treatment of the inflection of the Latin passive and deponent in Meillet et Vendryes, *Grammaire comparée des langues classiques* 328-31 (Paris, 1924) follows in the main, though not without inconsistency, the Zimmerian doctrine. See especially §524 ad fin., p. 331. The following sentence is practically a summary of Zimmer's theory: 'Mais on peut se demander si la désinence *-r-* de la 3e personne pl., qui tient une si large place en indo-iranien et qui paraît se retrouver dans le type latin *dixere* (§520) ne serait pas identique à la désinence de l'impersonnel, employée secondairement pour le passif.' Yet note the inconsistency of the statement on p. 330: 'La preuve que l'italique a connu l'emploi de *-r* tout seul à la 3e pers. est fournie par l'ombrien qui dit *ferar* (= *feratur*, avec valeur passive et non impersonnelle)' (italics mine). Cf. p. 294.

In *A Welsh Grammar, Historical and Comparative*, by J. Morris Jones (Oxford, 1913) occurs the following extraordinary perversion of Zimmer's theory (and, I may add, of the facts of Indo-European comparative grammar as we can now see them): 'In Pr. Ar. an ending *\*-r-* formed impersonals. It survived only in Indo-Iranian and Italo-Keltic. In Skr. it takes the form *-uḥ* (before vowel *-ur*) in the active, and *-re*, *-ire* in the middle; . . . These endings in Skr. form the 3rd pl.; this is natural enough when one considers that there is only a shade of distinction in meaning between the impers. *dywedir* "on dit" and the 3rd pl. *dywedant* "they say".' Morris Jones is alone, I think, in deriving the Skt. third plural *r*-endings from an IE impersonal, thereby reversing Zimmer's process!

worth while therefore to examine it in some detail. A review of his arguments will show, I believe, that his reasoning is in a number of respects unsound.

The principal points in which Zimmer is unscientific in his treatment of the verbal *r*-endings may be stated as follows:

1. Instead of deducing his hypothesis from known facts of either Irish or Latin, he starts from his own conception of Indo-European.<sup>9</sup>

How precarious this method of procedure is has been well expressed by A. Meillet, who says,<sup>10</sup> 'l'indo-européen est inconnu, et les concordances sont la seule réalité qu'ait à étudier le comparatiste.'

2. He assumes that—aside from the third plural active ending seen, for example, in Sanskrit *viduḥ* (*vidur*) 'they know'—the earliest form and earliest meaning of the *r*-endings are preserved in the Britannic dialects.<sup>11</sup>

Now these dialects are, of all languages that have verbal *r*-endings, the latest in literary tradition. The idea that in the so-called impersonal passive or 'man'-form of these languages—such as Breton *karer* 'man liebt', *gweler* 'man sieht', Cornish *y'm gylwyr* 'I am called', Welsh *cefir* 'man findet', *cenir* 'man singt'—we are to seek the *origin* of formations of such high antiquity<sup>12</sup> as the verbal forms in *-r* is one that decidedly lacks verisimilitude. It would seem far more likely that in the Britannic impersonals we have to do with a comparatively recent development of an ancient morpheme, whose origin must be sought elsewhere.

3. He makes the whole development of the Latin deponent and passive spring from an imaginary form, of the type *vehur*.<sup>13</sup>

He assumes that the distinction, characteristic of Old Irish, between the conjunct and the absolute forms of verbal inflection is inherited

Even the most recent general treatise on Indo-European grammar (Hermann Hirt, *Idg. Gram.* 4. 126, Heidelberg, 1928) adopts the hypothesis of Zimmer: 'Man wird daher im wesentlichen an der von Zimmer, a. a. O., aufgestellten Hypothese festhalten müssen'.

<sup>9</sup> L.c. 232 (paradigm of Indo-European Present, Aorist, and Perfect), 259-60: 'Übertragen wir die alten indogermanischen verhältnisse, welche . . . im altindischen getreu reflectiert werden, ins irische'.

<sup>10</sup> Introduction à l'étude comparative des langues indoeuropéennes,<sup>5</sup> p. viii (Paris, 1922).

<sup>11</sup> L.c. 268.

<sup>12</sup> Cf. Zimmer's own remark (l. c. 230), 'Dass in dem *r* (*ur*, *ar*) etwas uraltes steckt, wird niemand anzweifeln.'

<sup>13</sup> L.c. 278-83.

and reveals to us the original Indo-European verbal pattern.<sup>14</sup> He therefore postulates the existence in the indicative, subjunctive, and optative moods of a *conjunct* third plural active ending -r side by side with the *absolute* third plural active ending -nti.<sup>15</sup> He then reconstructs prehistoric linguistic events as follows:<sup>16</sup> a present third plural indicative active of the parent speech, for example *pro veghor* (the conjunct form), became in Italic *pro vehor*, in Latin *pro vehur*. The fact that no trace of such a form is found in Latin did not hinder him from regarding this purely hypothetical *vehur* 'they carry' (beside which he posits also a present subjunctive third plural *vehar*) as the starting-point for the entire development of the Latin passive and deponent conjugation.<sup>17</sup>

4. He calls the Latin and Irish r-conjugation an inflection which shows in Latin -ur, in Irish -ar, after active endings.<sup>18</sup>

Zimmer's idea is that an originally active form *vehur* 'they carry' came, through a restriction in use to an impersonal force 'one carries', to be conceived eventually as a third singular passive 'he is carried'.<sup>19</sup> The juxtaposition of the third singular passive *vehur* and third singular active *vehit*, third plural active *vehunt*, led in some fashion (just how, Zimmer is not quite certain) to the creation of passive forms *vehitur*, *vehuntur* (*amatur*, *amantur* etc.). Thus what Zimmer calls a 'passive exponent' *ur* was abstracted and added to active endings, and the later development of a complete passive system followed as a matter of

<sup>14</sup> This assumption, though fundamental to Zimmer's whole theory, is itself a hypothesis, and, according to Meillet, not at all a probable one. In his article 'Sur l'origine de la distinction des flexions conjointe et absolue dans le verbe irlandais', *Rev. Celt.* 28. 370-1, Meillet says: 'L'hypothèse de M. Zimmer que l'indo-européen aurait employé les désinences secondaires avec les formes verbales munies d'un préverbe ne repose que sur le seul témoignage de l'irlandais, elle est dénuée de toute vraisemblance [italics mine], car le préverbe était en indo-européen un mot rigoureusement autonome et ne pouvait par suite exercer pareille action sur la forme verbale.'

<sup>15</sup> L.c. 268, 278.

<sup>16</sup> L.c. 278.

<sup>17</sup> Cf. Charpentier, op. cit. 19-20: 'Aus solchen, streng genommen unbefindlichen Bildungen leitet Zimmer dann die ganze lateinische r-Konjugation ab, was mir reine Willkür zu sein scheint.'

<sup>18</sup> L.c. 229: 'eine flexion, die im lat. *ur*, im irischen, *ar* für gewöhnlich hinter den aktiven endungen zeigt.'

<sup>19</sup> L.c. 278-9: 'Machte nun dieses *vehor*, *vehār* dieselbe bedeutungsverschiebung durch wie im irischen *doberr*, *doberar*—"man fährt: es wird gefahren, man möge fahren: es möge gefahren werden"—, dann hatte man *vehit*, *vehunt* "er fährt, sie fahren", *vehur* "er wird gefahren", *vehar* "er möge gefahren werden".'

course.<sup>20</sup> On a similar basis the deponent forms, Latin *sequit-ur*, *sequunt-ur*, Irish *secheth-ar*, *sechet-ar*, came into being.<sup>21</sup> It goes along with Zimmer's conception that he considers even the second singular passive *vehere* an originally active form.<sup>22</sup>

It is now generally agreed not only that the ending *-re* seen in *vehere*, *sequere* etc. represents earlier *-se*—an ablaut form of the Indo-European second singular middle ending *-se/-so*—but also that the third singular and plural *sequitur*, *sequuntur* contain in the element before *r* the ancient Indo-European middle endings *-to* and *-nto*.<sup>23</sup> Since the vowel of the endings *-to*, *-nto* goes with the *t* (as in *ἔπει-το*, *ἔποι-ντο*) the notion of a passive exponent *-ur* falls to the ground. Though at the time when Zimmer's article appeared the character of the personal endings of the Latin (and Indo-European) verb was not so clearly apprehended as it is at present, yet even at that time scholars so competent as Brugmann were inclined to recognise the middle affinities of the verbal ending *r*. Zimmer himself quotes Brugmann,<sup>24</sup> 'ja Brugmann redet sogar von einem "mediale n r in der indogerm. grundsprache" und stellt betrachtungen darüber an, ob dies "mediale r" blos in der 3. plur. berechtigt war oder auch sonst.' On which Zimmer's comment is, 'In welchem "hypothesentrüben dunstkreis" bewegt sich nur Brugmann?'

5. Zimmer asserts that the meaning of this inflection is (a) purely active, (b) passive.<sup>25</sup>

For Zimmer the meaning of the Latin, as well as the Irish, deponent, is 'eine rein aktive'. He not only fails to perceive the semantic correspondence of numerous Latin, and some Irish, deponents with verbs that in other related languages are of only middle inflection—representing

<sup>20</sup> L.c. 279: 'Es bleibt die möglichkeit offen, dass das nebeneinanderliegen des nach bedeutung und form alten *vehit* "er fährt" und der neubildung nach bedeutung *vehur* "er wird gefahren" direkt zu einer form *vehitur* "er wird gefahren" neben *vehit* "er fährt" führte, wovon aus dann ein *vehuntur* neben *vehunt* sich von selbst ergab.

Wie auch immer die formen *vehitur*, *vehuntur*, (*amātur*, *amāntur* etc.) auf der nachgewiesenen grundlage (3. sing. passivi *vehur* und 3. sing. activi *vehit*, 3. pl. act. *vehunt*) mögen entstanden sein (italics mine), die abstrahierung eines passiven exponenten *ur* sowie die weiterwucherung war gegeben.'

<sup>21</sup> L.c. 280-3, 256-61.

<sup>22</sup> L.c. 284-5.

<sup>23</sup> Cf. my article, 'The Nature of the Latin Passive', *American Journal of Philology* 48. 160-1, with footnotes.

<sup>24</sup> L.c. 230.

<sup>25</sup> L.c. 229.



the now recognized classes of Indo-European *media tantum*<sup>26</sup>—but also completely ignores the manifold survivals in Latin literature itself of the original middle significance of the Latin forms in -r.<sup>27</sup> It would indeed, as he says,<sup>28</sup> be 'wunderbar, dass, als das latein sich ein medium geschaffen, es sich beeilte, dasselbe sofort ans aktiv abzugeben, ohne dass eine spur der medialen bedeutung blieb.' Such is in fact not the case. Many Latin deponents still retain traces of their inherited medial meaning.<sup>29</sup> Even in Irish, though it is commonly stated that there is no difference in meaning between the deponent and the active,<sup>30</sup> Pedersen considers that vestiges exist of an earlier distinctive significance of the deponent.<sup>31</sup>

6. He supposes that the Irish deponent is a relatively late Irish innovation.<sup>32</sup>

Practically all Celtic scholars now agree that on the contrary the Irish deponent is a decaying verbal category, the representative and heir of the ancient Indo-European middle voice.<sup>33</sup>

7. He also supposes that the Latin deponent is a Latin innovation.<sup>34</sup>

<sup>26</sup> Cf. E. F. Claffin, 'The Nature of the Latin Passive', *AJP* 48. 164-6, with footnotes 30-43.

<sup>27</sup> Cf. Claffin, l.c. 168-9, and 166 with footnote 45.

<sup>28</sup> L.c. 229.

<sup>29</sup> Cf. Claffin, l.c. 162-4, with table on p. 163 showing the semantic correspondence of Latin deponents with Homeric middles on the one hand and on the other hand with French reflexive verbs.

<sup>30</sup> E.g. by Vendryes, *Grammaire du vieil-irlandais*, 167; cf. Thurneysen, *KZ* 31. 63; Pedersen, *Vgl. Gram. d. kelt. Spr.* 2. 394.

<sup>31</sup> Op. cit. 2. 674.

<sup>32</sup> L.c. 261-2: 'Die deponentiale präsensflexion ist also für die zeit, welche durch die sprache dieser denkmäler (Wb.) repräsentiert wird (8. jahrh.), noch im um-sichgreifen, was doch auf eine in ihrem ursprunge nicht all z u f e r n l i e g e n d e n e u b i l d u n g hinweist'; cf. 258-9, 260-1, 263: 'Halten wir damit die thatsache zusammen, dass in den ältesten denkmälern die deponentiale flexion im präsens vor unsern augen auf die alte aktive aufgepfropft wird, so wird man nicht umhin können anzuerkennen, dass die ausbildung der deponentialen flexion im präsens kaum vor dem 7. jahrh. im irischen begonnen hat'; cf. 266.

<sup>33</sup> So R. Thurneysen, 'Zum deponens und passivum mit r', *Kuhn's Zeitschrift*, 37. 92 (cf. *ibid.* p. 110) (1900); H. Pedersen, *Vgl. Gram. d. kelt. Spr.* 2. 394 (1913); J. Vendryes, *Grammaire du vieil-irlandais*, 168 (1908), *id. Revue Celtique*, 34. 131-2 (1913); J. Pokorny *Altirische Grammatik* 63 (1925).

<sup>34</sup> L.c. 283: 'So entstanden auf äusserlichem wege im lateinischen [*italics mine*] aktivformen *loquuntur*, *loquitur* (neben *loquunt*, *loquit*), die formell mit den passiv-formen *vehuntur*, *vehitur* (*vehur*) zusammenfielen'; 288: 'Die aktive *ur-flexion* (deponentia) ist neben der alten aktiven *o-flexion* eine neubildung.'

Here too recent authoritative opinion supports the view that the Latin deponent also is the lineal descendant of the middle voice of the parent speech.<sup>35</sup>

8. Although the Latin and the Irish deponent are strikingly similar,<sup>36</sup> he requires us to suppose each independent in development from a third plural active.<sup>37</sup>

The inherent improbability that a *deponent* in either language should spring from an ancient *active* form<sup>38</sup> is lessened to be sure from Zimmer's point of view by his assumption that the meaning of the deponent is purely active. Even on this assumption, however, the theory that each language worked out a complete deponent inflection starting from the same active third plural as a basis, but altogether independently, the Irish deponent taking its rise in the perfect and *s*-aorist, and spreading thence to the present tense,<sup>39</sup> the Latin deponent, on the other hand, having its origin in the present,<sup>40</sup>—yet with the result that in the end the two deponents are so closely similar,—this theory, I say, passes the bounds of reasonable verisimilitude. Much as one may admire, as a work of pure imagination, the ingenuity with which Zimmer reconstructs the steps of the prehistoric development of the deponent in Irish and in Latin respectively, the demonstration remains from a sober scientific point of view unconvincing.

9. In both Irish and Latin he separates the deponent from the passive.<sup>41</sup>

<sup>35</sup> Cf. Meillet, op. cit. 197; Meillet et Vendryes, *Grammaire comparée des langues classiques*, 328–30; Stolz-Schmalz, *Lat. Grammatik*, (rev. by M. Leumann and J. B. Hofmann) 306–7 (1926). See also the careful study of the affinities of Latin deponents with Indo-European *media tantum* by Charpentier, *Die verbalen r-Endungen der indogermanischen Sprachen*, 71–8 (1917).

<sup>36</sup> Walde (*Über älteste sprachliche Beziehungen zwischen Kelten und Italikern* 8) calls the similarity 'verblüffend'.

<sup>37</sup> L.c. 279–83; 257–61.

<sup>38</sup> Cf. A. W. M. Odé, *De Uitgangen met R van het Deponens en het Passivum in de indoeuropeesche Talen* 40 (Haarlem, 1924): 'Een 3e plur. act. is een zeer twijfelachtig uitgangspunt voor een deponentiale en passieve flexie.'

<sup>39</sup> L.c. 261: 'So entstand die deponentiale flexion [des irischen] imperfekt und *s*-aorist (*s*-präteritum und *t*-präteritum). . . .

Durch verschiedene momente sind wir nun in der äusserst glücklichen lage, die zeit, in welcher die übertragung der im *s*-aorist and perfekt entstandenen deponentialen flexion ins praesens stattfand, ziemlich genau feststellen zu können.'

<sup>40</sup> L.c. 280: 'Fürs lateinische berechtigt nichts zu der annahme, die fürs irische geboten ist (s. s. 258 ff.). Es kann also das lat. deponens nur seinen ausgangspunkt im praesens genommen haben'.

<sup>41</sup> L.c. 248–51, 256–61; 274–83.

When Zimmer wrote, since only the Italo-Celtic (and Indo-Iranian) *r*-endings were known, such a divorce might seem less open to question. Today, however, with the medio-passive *r*-forms of Phrygian, Tocharian, and Hittite before us, among which deponent (or middle) and passive forms lie side by side and merge into each other without any sharp distinction of meaning,<sup>42</sup> it appears highly probable that a common origin should be sought for the Irish and Latin passives and deponents, also.<sup>43</sup> This conclusion is strengthened by the apparent blending of deponential and passive inflections both in Britannic<sup>44</sup> and in Sabellian.<sup>45</sup>

In Latin, passive and deponent are identical in form. Walde, it is true, assures us<sup>46</sup> that 'diese ideale Gleichförmigkeit erst durch Verwischung ursprünglich vorhandener Unterschiede zustande gekommen ist'. We have however no traces in the Latin language of such originally existing differences, and in the absence of any positive evidence to the contrary it seems more natural to suppose that in Latin, as in other Indo-European languages, the passive voice was simply a function of the ancient middle,<sup>47</sup> of which the deponent is the representative. It is often indeed difficult to distinguish the Latin deponent from the passive. *Pascor* for example is given in our dictionaries as a deponent, though *pasco* is also given as an active verb. Similarly, *revertor* is commonly

<sup>42</sup> For Phrygian, cf. W. M. Calder, *Journal of Hellenic Studies*, 31. 187 (1911); for Tocharian, cf. Meillet, op. cit. 199: 'Le "tokharien" a aussi des désinences en -r dont la valeur semble nettement médio-passive'; for Hittite, cf. Carl J. S. Marstrander, 'Caractère indo-européen de la langue hittite' (in *Skrifter utgit av Videnskapsselskapet i Kristiania*, 1918) 97: 'De plus, toutes les formes en -r indifféremment paraissent faire fonction et du moyen et du passif'. See also Odé, op. cit. 15-19 (for Tocharian), 19-20 (for Phrygian), 21-3 (for Hittite), and the literature there cited.

<sup>43</sup> Cf. E. Hermann, *Göttingische gelehrte Anzeigen* 1918. 344-9.

<sup>44</sup> Cf. Pedersen, op. cit. 2. 404: 'Wir haben einerseits ausserhalb des suffixlosen Prät. mit alten Formen auf -to-r, -mo-r, -nto-r (vgl. lat. loquitur, loquimur, loquuntur) zu rechnen; darauf deuten die archaischen air. Schreibungen du-fuisledor, frisbrúdé mor . . . und die archaische mc. Passivendung -to r, die man bei der offenkundigen Vermischung der Passiv- und der Deponensflexion im Brit. [italics mine] getrost als ursprüngliche Deponensendung deuten darf'.

<sup>45</sup> C. D. Buck, *Grammar of Oscan and Umbrian* 11 (1904): 'The Passive forms include both genuine Passives and Deponents, as in Latin'; Odé, op. cit. 10-12. Cf. Thurneysen, *KZ* 37. 110: 'Gemeinitalisch scheint zu sein, dass deponentiale und passivische formen meist nicht geschieden waren'.

<sup>46</sup> Op. cit. 9.

<sup>47</sup> See my discussion of the development of the passive from the middle in the various Indo-European dialects, *AJP* 48. 157-60.

classed as a deponent rather than as a passive. *Vertitur* can mean indifferently 'turns himself', 'turns' (intransitive), or 'is turned', and it is impossible to say where the 'deponent' leaves off and the 'passive' begins.

In Irish, on the other hand, only the deponent has a complete inflection, while the passive is limited to the third persons singular and plural, the first and second persons being expressed by infixed pronouns.<sup>48</sup> A difference in form between passive and deponent also exists in certain instances.<sup>49</sup> Yet in many forms passive and deponent in Irish also are absolutely identical.<sup>50</sup> Taken in conjunction with the manifold evidence of kinship between passive and middle in other Indo-European languages this identity of form surely points to a community of origin.

10. In order to make good his hypothesis Zimmer sweeps aside the existing traces of deponents in both Oscan-Umbrian and Britannic.<sup>51</sup>

He denies in the most positive manner the existence of a deponential inflection at any period either in the Britannic dialects or in Oscan and Umbrian. It is indeed essential to his hypothesis—that deponents in Irish and in Latin are innovations of those languages—to maintain the non-existence of deponents in the closely related Celtic and Italic dialects. We trench here upon one of the most difficult parts of this vexed and intricate problem. In both linguistic fields—the Britannic

<sup>48</sup> Cf. F. W. O'Connell, *A Grammar of Old Irish*, 72-3; J. Pokorny, *Altirische Grammatik*, 63.

<sup>49</sup> Thurneysen's earlier view (KZ 31. 63; cf. 37. 93) that the third person of the Irish deponent once was the same as the passive third person, and that the language sought later to differentiate passive and deponential forms, seems better than his later assumption, over-subtle, as it seems to the writer, that the syncopated (passive) and unsyncopated (deponent) forms, respectively, go back to different original endings. The view that the existing difference between the passive and deponent third persons in Irish is due to secondary differentiation is supported now also by E. Hermann (GGA 1918. 348-9).

<sup>50</sup> Cf. Thurneysen, KZ 37.93-4: 'Darum kann man formen wie *miditir* Wb. 4c 9, *midetar* Ml. 128b 2 nicht ansehen, ob sie deponential oder passivisch sind; erst der lateinische text mit *aestimantur* entscheidet in diesen zwei fällen für das letztere'.

<sup>51</sup> L.c. 275-9 (for Oscan-Umbrian), 266-74 (for Britannic). On p. 266 Zimmer admits that *das nichtvorhandensein dieser flexion* (the deponent) in the Britannic dialects would be hard to understand except on the assumption that in Irish the deponent arose in the *s*-aorist (*s*-präteritum) and was from there transferred to the present. Since this assumption is baseless (being bound up with Zimmer's erroneous view that the Irish deponent is a young, developing inflection) there remains according to Zimmer himself the probability that there would be deponents in the Britannic dialects, also.



and the Sabellian—the material is scanty and difficult of interpretation. The views of scholars, also, on such evidence as we have, are diametrically opposed. Nevertheless, the testimony to the one-time existence of deponents both in the Britannic dialects and in Oscan and Umbrian seems fairly clear.

There is, to be sure, only one common-Britannic deponent—Welsh *gwyr* 'he knows', Cornish *gor*, Breton *goar* = Irish *-fitir*—and the authentic character even of this one deponent has been seriously called in question.<sup>52</sup> It is however accepted by one of the most eminent Celtic scholars, Thurneysen,<sup>53</sup> and apparently also by Charpentier.<sup>54</sup> Even if *gwyr* and its congeners be rejected, however, there remain the deponents of old Welsh poetry, such as *ry-glywawr* 'wird hören', *dydeuhawr* 'wird kommen', *ry-m-awyr* 'gestehe mir', 'schenke mir'.<sup>55</sup> These Welsh

<sup>52</sup> For discussions of this interesting word, which Zimmer connects with the Sanskrit third plural perfect active *viduḥ* (*vidur*) 'sie wissen' and so considers one more proof of his general theory, see the following: Windisch, *Abhandl. d. sächs. Ges. d. W.* 10. 474 (1887); Zimmer, *Kuhn's Zeitschrift* 30. 266-74 (1887); Loth, *Revue Celtique* 10. 480-2 (1889); Thurneysen, *Kuhn's Zeitschrift* 37. 93, 96 (1900), *Handbuch des alt-irischen*, 402 (1909); Lloyd-Jones, 'The development of the verbal r-forms', *Miscellany Kuno Meyer* 202 (1912); Pedersen, *Vgl. Gram. d. kelt. Spr.* 1. 112-13; 2. 406 (1909, 1913); Brugmann, *Grundriss* II. 3. 662; Charpentier, *Skrifter utgifna af K. Humanistiska Vetenskaps-Samfundet i Uppsala* 18.4.85, ftn. 3 (1917); Vendryes, *Revue Celtique*, 34. 141 (1913) and 37. 385-6 (1919); Walde, *Über älteste sprachliche Beziehungen zwischen Kelten und Italikern* 12-13 (1917); Pokorny, *IF Anzeiger*, 38-39, 10-11 (1920); Wackernagel, 'Zu altir. *fitir*', *IF* 39. 220-3 (1921); Odé, *De Uitgangen met R van het Deponens en het Passivum* 3 (1924); cf. Hirt, *Idg. Gram.* 4. 126 (1928). Vendryes seems to me to shift his ground slightly in his later treatment of the subject. In his article in *Revue Celtique* 34 he speaks of the prototype of *fitir* and *gwyr* as 'une ancienne 3<sup>e</sup> personne du pluriel, soit \**widri* "ils savent, on sait"', while in the review in *Revue Celtique* 37 he says, 'Il faut certainement partir d'une forme impersonnelle \**vid-r* "on sait"'. There is no proof that such a sememe as \**vidr* 'on sait' ever existed. But even if \**vidr* 'one knows' once existed, it still remains to explain the semantic transition from 'one knows' to 'he knows' (the meaning which *gwyr* and *fitir* actually bear). This transition seems to me difficult and I am interested to find that Wackernagel experiences the same difficulty. He says, l.c. 223, 'Wie sich aus einem *tsaai* "man weiss" ein "er weiss" hätte entwickeln sollen (Vendryes *Revue celt.* 34, 141), sieht man nur schwer. Ich leugne nicht unbedingt die Möglichkeit derartiger Umwertung, aber sichere Nachweise tatsächlichen Vorkommens und eine einleuchtende Erklärung vermisst man noch.'

<sup>53</sup> KZ 37. 93. So also J. Pokorny accepts *gwyr* as evidence that Britannic shows rudiments of the deponent inflection, *IF Anzeiger*, 38-39, 10-11 (1920).

<sup>54</sup> *Die verbalen r-Endungen der indogermanischen Sprachen* 85, footnote 3 (1917).

<sup>55</sup> J. Rhys, 'Notes on the language of old Welsh poetry', *Rev. Celt.* 6. 40-9 (1883-1885); J. Loth, *Rev. Celt.* 31. 481-3 (1910).



deponents, it is true, are scornfully repudiated by Zimmer, who explains them as quite regular 'man'-forms.<sup>56</sup> The deponential interpretation, however, seems much more natural, and is accepted by Pedersen,<sup>57</sup> Charpentier,<sup>58</sup> and Odé.<sup>59</sup> The early Welsh passive forms in *-ator*, *-otor*, *-etor*, *-itor*, e.g. *clywitor corn can ni weler* 'the horn is heard even if not seen', are also explained by Pedersen<sup>60</sup> as containing an original deponent ending. A striking confirmation of the former existence of deponents in Britannic is also furnished by the solitary survivor of the ancient Gallic deponent, *marcosior*.<sup>61</sup> As Odé points out,<sup>62</sup> this curious form (if Loth rightly interprets it as the first singular of the subjunctive of a deponent verb<sup>63</sup>) in a language most closely related to the Britannic establishes the presence of a deponent outside of Gaelic.<sup>64</sup>

In Oscan and Umbrian, also, deponents are not utterly lacking, however much Zimmer (and Walde after him) would have it so. Meillet accepts Umbrian *her-te-r* 'il veut', Oscan *kara-nte-r* 'ils se nourrissent',<sup>65</sup> and there are probably others.<sup>66</sup> The parallelism of the four language groups with medio-passive forms in *-tor* (*-tur*, *-tar*, *-ter*) is indeed highly significant—Latin *sequitur*, *sequuntur*; *emittitur*, *emuntur*; Umbrian *emantur*; Old Irish *-sechethar*, *-sechetar*; Middle Welsh *clywitor*<sup>67</sup>—and, we may add, Oscan *karanter*.<sup>68</sup>

11. His treatment of the type *loquimini* is illogical and arbitrary.<sup>69</sup>

Starting from the assumption that in the second singular passive—e.g. *diceris*—the final *s* betrays an original active meaning of the form,

<sup>56</sup> L.c. 268-9. Walde (op. cit. 10-12) closely follows Zimmer in interpreting these early Welsh *r*-forms as impersonal passives. Even the express addition in one instance of the pronoun 'thou': *rymawyr titheu* 'gib du mir' seems to him an inference from the situation rather than an indication of the personal character of the form. It is difficult to follow this reasoning.

<sup>57</sup> Op. cit. 2. 391.

<sup>58</sup> Op. cit. 49.

<sup>59</sup> Op. cit. 3-4 (cf. p. 81). Vendryes also, in commenting on Odé's view (*Rev. Celt.* 42. 387) now seems inclined to favor it.

<sup>60</sup> Op. cit. 2. 404, cf. §623, Anm. 2.

<sup>61</sup> G. Dottin, *La langue gauloise* 123 (Paris, 1920).

<sup>62</sup> Op. cit. 84.

<sup>63</sup> *Rev. Celt.* 38. 87 (1920-1921)

<sup>64</sup> Cf. Vendryes, *Rev. Celt.* 42. 387.

<sup>65</sup> Op. cit. 197.

<sup>66</sup> E. g. *U terkantur* 'suffragentur', cf. Buck, §308.

<sup>67</sup> Cf. Odé 83; Vendryes, *Rev. Celt.* 42. 387 (1925).

<sup>68</sup> Cf. Meillet et Vendryes, *Grammaire comparée des langues classiques* 308, §487.

<sup>69</sup> L.c. 285.

he argues as follows. In the second person plural the reverse process took place. The second plural passive *legimini*, *amamini* is properly, as Bopp established many years ago, the nominative plural of the passive present participle = Greek λεγόμενοι. Now when *dicimini* 'you are called' had entered the paradigm beside *dicitur* 'he is called', *dicuntur* 'they are called', a *loquimini* 'you speak', beside *loquitur* 'he speaks', *loquuntur* 'they speak', was a natural inference. In other words, he accepts the origin of the second plural in *-mini* from an Indo-European middle participle, represented, for example, by Greek ἐπόμενοι; yet instead of drawing the logical conclusion that this is one more testimony to the middle character of the passive paradigm, Zimmer with an extraordinary perversity of reasoning infers that this form was first of passive significance and that the deponent second plural was derived from the passive. 'Eine andere erklärung von *sequimini*, *loquimini*, *hortamini*', he concludes, 'ist nicht möglich'!<sup>70</sup>

Dottin, in his well-known doctoral dissertation,<sup>71</sup> closely follows Zimmer, yet (it seems to me) without fully understanding Zimmer's thought. Thus he declares that: (1) the 'impersonal' was the generator of the deponent and the passive;<sup>72</sup> (2) even the second singular passive is the ancient impersonal;<sup>73</sup> (3) in Latin the deponent has no special meaning whatever;<sup>74</sup> (4) it is not at all probable that the Latin deponent is derived from the passive (!);<sup>75</sup> (5) *legitur* is synonymous with *legunt* and the combination may have given rise to *sequuntur* and by creative

<sup>70</sup> For a different, recent explanation of Latin *-mini* see Odé, *De Uitgangen met R* 63-4 (commented on by Vendryes, *Rev. Celt.* 42. 411-12, footnote).

<sup>71</sup> G. Dottin, *Les Désinences verbales en R en Sanskrit, en Italique et en Celtique*, Rennes, 1896.

<sup>72</sup> Op. cit., 120-1: 'l'impersonnel servait de transition entre le déponent et le passif de même qu'il était, croyons-nous, leur générateur.'

<sup>73</sup> Ib. 117-18: 'Si l'on admet que la seconde personne du singulier passif en *-ris*, *-re* est justement l'ancien impersonnel, il faudrait qu'il y eût eu un échange de fonction entre l'ancien impersonnel en *-ris*, *-re* et la troisième personne du singulier passif en *-tur*. Cet échange n'a logiquement rien d'impossible.'

<sup>74</sup> Ib. 119-20: 'En latin, le déponent n'a point de signification particulière.'

<sup>75</sup> Ib. 120: 'Il n'est point probable qu'il [le déponent] dérive du passif, puisque l'irlandais qui n'a point de passif, à proprement parler, possède un déponent.' Yet later on the same page we read: 'A la même époque, se formait sur l'impersonnel, considéré comme un passif, toute une conjugaison personnelle passive et le rapport aussitôt établi entre le passif et le déponent intransitif faisait créer la première et la seconde personne du déponent sur le modèle du passif.' This is confusing, to say the least!

analogy to *sequitur*;<sup>76</sup> (6) the deponent developed in the two languages in an independent manner, and the Irish deponent, of recent origin, cannot be closely related to the Indo-European middle.<sup>77</sup> Finally, the *r* may have been a third plural ending, but Dottin thinks it equally probable that the *r* was in origin a characteristic of the impersonal.<sup>78</sup> Yet, in spite of his close dependence on Zimmer's views, Dottin rightly has scruples (a) on separating the Irish and the Latin passive-deponent;<sup>79</sup> (b) as to assuming that the Celtic languages alone should have preserved nearly intact the special grammatical category of the impersonal.<sup>80</sup>

In 1900, in an article by Thurneysen,<sup>81</sup> serious criticism was directed toward some of Zimmer's most characteristic notions respecting the Celtic and Italic *r*-forms. Especially in regard to the age of the Irish deponent Thurneysen pointed out that the then recent research of Strachan<sup>82</sup> had clearly demonstrated that the Old Irish deponent was not, as Zimmer had assumed, a late innovation, still developing almost under our eyes out of the active, but was instead a formation that was

<sup>76</sup> Ib. 120: 'L'impersonnel a été compris de bonne heure en latin comme une troisième personne du pluriel actif; *legitur* est synonyme de *legunt*. La combinaison de ces deux modèles a pu donner naissance à *sequuntur* qui, compris comme troisième personne du pluriel, a nécessité la création analogique de *sequitur*, correspondant à *legitur*, lequel, par l'analogie des terminaisons actives, a été employé comme troisième personne du singulier.' Dottin is here reasoning in a manner backwards from Zimmer's reasoning (since Zimmer assumes the third person plural as the starting-point of the impersonal); yet he is obviously under the influence of Zimmer and arrives at substantially the same result.

<sup>77</sup> Ib. 374-5: 'Mais nous croyons avoir démontré que le déponent s'est développé dans les deux langues d'une manière indépendante, et que le déponent irlandais, d'origine récente, ne peut être apparenté étroitement à la voix moyenne de l'indo-européen.'

<sup>78</sup> Ib. 375: 'Il est possible, comme le supposent Windisch et Zimmer, que *-r* fût une désinence de la troisième personne du pluriel. Il est non moins probable . . . que *r* était à l'origine la caractéristique de l' impersonnel.'

<sup>79</sup> Ib. 364: 'Si, à la rigueur, on pouvait séparer le passivo-déponent irlandais du passivo-déponent latin, malgré les nombreux rapports qui unissent ces deux flexions, il était difficile de séparer le latin des autres langues italiques.'

<sup>80</sup> Ib. 375: 'Si notre conjecture est vraie, il serait curieux que les langues celtiques eussent seules conservé à peu près intacte la notion d'une catégorie grammaticale qui aurait eu, au moins dans une partie du domaine indo-européen, une expression spéciale.' Cf. Meillet, *op. cit.* 199 ad fin.

<sup>81</sup> R. Thurneysen, 'Zum deponens und passivum mit *r*', *Kuhn's Zeitschrift* 37. 92-111 (1900).

<sup>82</sup> 'Contributions to the History of the Deponent Verb in Irish', *Transactions of the Philological Society*, 1891-94.

dying out.<sup>83</sup> Thurneysen also expresses some skepticism as to the accusative character of the infixed pronouns with Celtic passive verbs, which according to Zimmer's hypothesis must be conceived as objects of the (originally active) 'man'-form.<sup>84</sup> He further draws attention to the significant fact that it is precisely in the third person, the basic form, that the infixed pronoun, which would be necessary to clearness if it were felt as the object of an active 'man'-form, is lacking in the older Celtic.<sup>85</sup> The fact that in Modern Welsh and in the comparatively late Cornish and Breton an infixed pronoun of accusative form is used also with the third person (as well as with the first and second persons) would seem to show that the conception of the passive as a 'man'-form was a relatively late development, instead of being, as Zimmer would have it, the original force. From the Celtic point of view, therefore, Thurneysen concludes, the assumption that the non-deponent (passive) *r*-forms were originally active 'man'-forms is not only not necessary, but not at all probable.<sup>86</sup>

Nevertheless, Thurneysen shows the influence of Zimmer in separating the Irish passive from the deponent. In this part of his discussion there are, it appears to me, serious flaws in his reasoning. In the first place, Thurneysen admits that in all probability the Irish and the Latin deponent, so great is their outward resemblance, had not only their origin but a part of their development in common.<sup>87</sup> In the Italic period furthermore he concedes that deponent and passive for the most part were not separated.<sup>88</sup> This mingling of passive and deponent in Common Italic, moreover, did not, according to Thurneysen, rest on second-

<sup>83</sup> Thurneysen, l.c. 92.

<sup>84</sup> Id. ib. 97-102. On the lack of any clear distinction of case in Celtic pronouns cf. F. Sommer, *Zur Lehre vom Pronomen Personale infixum in altirischen Glossen*, 5: 'Allein schon aus den hier für Akkusativ und Dativ beigebrachten Belegen erhellt, dass die Kasus-bedeutung durchaus keinen Einfluss auf die Form des betreffenden Pronomens hat'; Edwin Norris, *The Ancient Cornish Drama*, 2. 242: 'Personal pronouns may be practically considered as indeclinable.'

<sup>85</sup> Ib. 99-100.

<sup>86</sup> Ib. 102. Cf. Thurneysen's remark on p. 98: 'Fürs Altkymrische ist ferner die "man"-bedeutung ausgeschlossen, wenn meine übersetzung der Oxforder glosse: *celir nimer bichan gutan ir maur nimer* "eine kleine zahl verbirgt sich unter der grossen zahl" richtig ist (Rev. Celt. XI 205). "Man verbirgt" ergäbe keinen sinn.' It is interesting to note that Walde, also, though strongly supporting the 'man'-form theory, translates *celir* 'verbirgt sich' (*Über älteste sprachliche Beziehungen* 20).

<sup>87</sup> Ib. 92-3.

<sup>88</sup> Ib. 110.

ary blending of forms, but rather on the fact that the deponent, like the ancient middle, of which it was an outgrowth, could from the beginning have been at once middle and passive.<sup>89</sup> Yet Thurneysen separates the Irish deponent (which we must remember is in his opinion identical with the Latin deponent) from the Irish passive,<sup>90</sup> and also supposes that eventually the Latin passive and deponent were separate in origin!<sup>91</sup> At this extraordinary conclusion Thurneysen arrives by the hypothesis that in Italic, beside the medio-passive *r*-forms, there once existed purely passive or at least non-middle forms, which arose from an infinitive *r*-formation, originally used as an imperative.<sup>92</sup> This hypothesis seems to me over-subtle and in the highest degree improbable.

Again, in developing this hypothesis, Thurneysen reasons as follows: On page 104 he admits that the occurrence of the shorter *r*-forms (without the personal ending *t*) in Oscan only in imperative sentences may be due to chance; on page 105 he lets Oscan be the deciding factor in making these *r*-forms imperative in meaning; on page 106 he draws from these premises the conclusion that the simple *r*-forms (such as the Irish passive *do berr* 'wird gegeben') must go back to an Italo-Celtic infinitive of the goal. Such reasoning is to say the least not very convincing.

With the discovery of the Tocharian medio-passive *r*-forms in the opening years of the twentieth century one would have supposed that the discussion would enter on a new phase. Contrary to what might have been expected, however, Vendryes in his article *Les Formes verbales en -R- du Tocharien et de l'Italo-Celtique*<sup>93</sup> presents a view which is in substance the theory of Zimmer. With regard to the Irish and the Latin deponent, it is true, Vendryes expresses ideas the very opposite of Zimmer's. Contrast the almost lyric freshness of Zimmer's conception of the youthful deponent<sup>94</sup>—'Wir können also unsere erörterungen . . . dahin zusammen fassen, dass die deponentiale flexion im präsens im irischen jünger ist als die wirkungen des irischen accents, jünger als die alte schicht volksthümlicher lehnwörter aus dem latein, jünger als die sogenannte aspiration der tenues und jünger als die in den erhaltenen altirischen texten herrschende regel der lautgebung'—

<sup>89</sup> Ib. 110.

<sup>90</sup> Ib. 106-110.

<sup>91</sup> Ib. 111.

<sup>92</sup> Ib. 102-6, 110.

<sup>93</sup> *Revue Celtique* 34. 129-42 (1913).

<sup>94</sup> *KZ* 30. 266.



with Vendryes's lament over the decline and fall of the same verbal category.<sup>95</sup> "Le déponent est en marge du système verbal italo-celtique. Aussi ne s'est-il maintenu que d'une façon précaire et non sans de nombreux flottements. En vieil-irlandais, il n'a même plus déjà de flexion complète; l'actif empiète sans cesse sur lui. . . . Comme en celtique, le déponent est en latin dès le début de la période historique voué à la mort. Il semble donc que nous assistions dans les deux langues au déclin d'une ancienne catégorie grammaticale arrivée à son terme plutôt qu'aux premiers progrès d'une catégorie nouvelle, encore incertaine, et qu'une mauvaise fortune aurait tuée dès l'enfance.' Yet, notwithstanding this divergence of views on an essential feature of Zimmer's hypothesis, Vendryes adopts its main outlines and agrees with its originator (1) in separating the passive from the deponent,<sup>96</sup> (2) in accepting the theory of the impersonal passive,<sup>97</sup> (3) in making both deponent and passive in *r* go back to a third person plural.<sup>98</sup>

In 1917 the theory of the impersonal passive was put to new uses by Alois Walde<sup>99</sup> as a means of proving his hypothesis of an ancient Irish-Latin linguistic unity over against Early Britannic and Early Sabellian dialect-groups. In the course of his argument Walde, in close congruence with Zimmer's leading concepts, maintains that: (1) deponent and passive were quite separate formations;<sup>100</sup> (2) the deponent is a form of purely active meaning;<sup>101</sup> (3) the deponent was an innovation (not, as with Zimmer, of the Irish and Latin separately, but of the Gaelo-Latin);<sup>102</sup> (4) there were no deponents in Britannic or in Oscan-Umbrian;<sup>103</sup> (5) the passive forms in simple -*r* were originally impersonal 'man'-forms;<sup>104</sup> (6) the passive forms with *t* + *r* were a later development;<sup>105</sup> (7) Britannic and Oscan-Umbrian preserve the most archaic form and meaning of the *r*-endings;<sup>106</sup> (8) the deponential *r*, at least, probably goes back to a third plural.<sup>107</sup>

<sup>95</sup> L.c. 131-2.

<sup>96</sup> Ib. 133, 137.

<sup>97</sup> Ib. 134-5, 137.

<sup>98</sup> Ib. 137-40, 141-2.

<sup>99</sup> *Über älteste sprachliche Beziehungen zwischen Kelten und Italikern.*

<sup>100</sup> Op. cit. 9-10.

<sup>101</sup> Ib. 11.

<sup>102</sup> Ib. 26.

<sup>103</sup> Ib. 10, 13.

<sup>104</sup> Ib. 17.

<sup>105</sup> Ib. 18-19, cf. 26.

<sup>106</sup> Ib. 26.

<sup>107</sup> Ib. 8 (ftn. to p. 7).

Walde's realignment of the Italo-Celts has not met with very general acceptance,<sup>108</sup> and so far as it depends on the argument from the verbal *r*-forms can hardly be maintained in view of the increasing unanimity of scholars in recognizing the existence of deponents both in Oscan and Umbrian and in the Britannic dialects.

In the almost labyrinthine mazes of the discussion of the verbal forms in *r* it seems to have escaped attention that the views of the various exponents of the hypothesis of the impersonal passive are often contradictory and mutually destructive. Thus Dottin follows Zimmer closely in detail, yet thinks that the *r* may be a characteristic of an impersonal in the parent speech,<sup>109</sup> a notion which destroys the *fontem et originem* of Zimmer's whole theory. For the assumption that an original third plural active ending became stereotyped as an impersonal is basic to this theory. Again, Thurneysen states with emphasis that however it may be with the other *r*-forms the deponent at all events has nothing to do with the third plural perfect active.<sup>110</sup> Walde, on the contrary, considers that the deponential *r* at least probably goes back to a third plural.<sup>111</sup> And Vendryes declares that the third plural is the starting-point in all three cases (deponent, impersonal passive, and preterite).<sup>112</sup> Indeed, Zimmer's conclusion seems to show a tendency to persist even after the premises by which he arrived at it have become insubstantial, like the grin of the Cheshire-Cat 'which remained some time after the rest of it had gone'.

Despite its lack of adequate scientific basis the hypothesis has found its way as apparently authoritative doctrine into the general treatises

<sup>108</sup> Cf. E. Hermann, *GGA* 1918. 361: 'Das, was Walde hat beweisen wollen, hat er also nicht bewiesen.' A similar judgment is expressed by Odé 84; and by Vendryes, *Rev. Celt.* 42. 387, 390 (1925). For a favorable review of Walde's essay see J. Pokorny, *IF* 38-39 (1917-21), *Anz.* 8-13 (but cf. J. Wackernagel, *ibid.* 39. 220-3).

<sup>109</sup> Cf. footnote 82.

<sup>110</sup> *KZ* 37. 110: 'So viel scheint mir jedenfalls sicher . . . dass das deponens nichts mit der III plur. perf. act. zu schaffen hat.'

<sup>111</sup> *Über älteste sprachliche Beziehungen zwischen Kelten und Italikern* 8 (ftn. to p. 7): 'worin man wohl zutreffend eine Bestätigung der Theorie sieht, die den Ausgangspunkt wenigstens des deponentialen *r* in einer Endung der 3. pl. sucht.'

<sup>112</sup> *Revue Celtique* 34. 141: 'L'impersonnel remonterait donc aussi à une troisième personne du pluriel, et ce serait finalement dans les trois cas examinés la valeur propre de la désinence en -r.' Cf. p. 142 ad init.

of Brugmann, Meillet, Lindsay, and Ernout.<sup>113</sup> By Lindsay the Latin language is even endowed with an imaginary form *\*amar*, as in the supposed expression *\*amar amicos* 'one loves one's friends'.<sup>114</sup> In the first edition of his *Grundriss* Brugmann explains the Oscan phrase *sakrafir ultiumam* 'the last festival shall be celebrated' as exactly like 'the Latin *legitur Vergilium, legendum est Vergilium*'.<sup>115</sup> As authority for these Latin expressions Brugmann cites Weisweiler,<sup>116</sup> whose authority proves on investigation to be the hexameter:

Matthaeum legitur, Psalmos erit ante legendum  
from a work by a thirteenth century Franciscan friar, Alexander de villa Dei.

At the conclusion of his article Thurneysen says, 'Beyond this rather shadowy silhouette I should not care to go pending further discoveries.' By a happy fortune which Vendryes characterizes as the linguistic event which will mark the first years of the twentieth century, a new Indo-European language has been discovered in Central Asia, the Tocharian; and this language proves to have a developed verbal system in *r*, which is, according to A. Meillet, the chief interpreter of this new language, clearly medio-passive in sense, showing no trace of the impersonal.<sup>117</sup> Even more impressive is the testimony of the other recently discovered language, Hittite, which also has personal, medio-passive forms in *-r*.<sup>118</sup>

<sup>113</sup> *Morphologie historique du latin*<sup>2</sup> 193-7, (Paris, 1927). In this latest edition of his historical grammar Ernout has not modified in any essential respect his earlier views. He still holds that the *-r* was a characteristic of the impersonal and had its starting-point in the third singular, from which it spread by analogy to the other persons of the medio-passive,—a theory which, as we have seen, is directly opposed to the view of Zimmer and of Vendryes that the third person plural was the starting-point.

<sup>114</sup> W. M. Lindsay, *The Latin Language* 524 (Oxford, 1894); *A Short Historical Latin Grammar*<sup>2</sup> (Oxford, 1915), 108-9, where the equally apocryphal *\*amar hominem* is substituted for *\*amar amicos*.

<sup>115</sup> Cf. 2. 2. 1391.

<sup>116</sup> *Das lateinische participium futuri passivi in seiner Bedeutung und syntaktischen Verwendung* (Paderborn, 1890), 70, fn. 2.

<sup>117</sup> See note 45 (citation from Meillet) and compare Vendryes, *Rev. Celt.* 34. 113: 'Mais cette caractéristique *-r* ne saurait être confondue avec la désinence italo-celtique du passif impersonnel; car le tokharien ne connaît rien qui ressemble à ce dernier' (italics mine).

<sup>118</sup> Through the kindness of Professor E. H. Sturtevant of Yale University I have had the privilege of consulting his collections of Hittite verbs and thus getting the most recent data on Hittite *r*-endings. Though Mr. Sturtevant warned me that his collections were not complete and the time at my disposal did not permit an exhaustive study of them, it is, I think, significant that among the

Such a third singular as *esari*, 'he sits', plausibly connected with the I. E. *medium tantum* represented by Greek *ἵσται*, and ending in *r* without *t* would seem to be decisive.

One of the most eminent of modern men of science, Lord Kelvin, is quoted as saying, 'Whenever you come upon a difficulty, you are on the eve of a discovery'. We have seen that the hypothesis under consideration leads us into innumerable difficulties. The discovery that we are on the eve of I have tried to indicate in my paper on *The Nature of the Latin Passive, in the Light of Recent Discoveries*.<sup>119</sup>

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numerous verbal *r*-forms of his card-catalogue I did not encounter a single one with the meaning of an impersonal. Compare Sturtevant, *LANGUAGE*, 4. 165-9, especially the statement (p. 168): 'The evidence of Hittite does not favor the connection of these endings [certain medio-passive endings of Italo-Celtic and Tocharian] with the *r*-endings of the third pl. active, which has become almost a dogma of IE comparative grammar.'

<sup>119</sup> *AJP*. 48. 157-75.

## THE OGHAM GENITIVE SINGULAR IN -AIS

LOUIS H. GRAY

COLUMBIA UNIVERSITY

[Genitives in -AIS (and -AI) from *io*-stems are assumed to contain \*-ois, the ending of the IE *i*-stems. Attention is directed to the same metaplasm in Oscan-Umbrian. Messapian -aihi, etc., may continue \*-ois-i, and contain a double genitive ending, if the last syllable is to be connected with the genitive -i of Latin and Celtic.]

Three genitives singular in -AIS are found in Irish Ogham inscriptions: GEBBAIS MAQI TANAIS and BIR MAQI MUOI ROTTAIS 'of G, son of T', and 'of B, son of the posterity of R.'<sup>1</sup> Concerning these forms Professor John MacNeill wrote: 'I cannot equate [them] in MS. Irish or elsewhere. I think they may arise from faulty inscription, or may be pseudo-archaisms. The names in which they occur have not been identified by MS. equivalents. . . . Of final consonants, s only is noted; it disappears before the latest Ogham forms appear, but may be written artificially, as in Gosochtos 223, and perhaps in the genitives in -ais. . . . I cannot refer these to any known declension'.

Beside these genitives in -AIS there are seven in -AI: CARRICAI (6), ERAQETAI (165), MOGAI (170), QERAI (78, 79), QETAI (*Journal of the Royal Society of Antiquaries of Ireland*, 1895, 102), SENAI (222), and VEQOANAI (199); and one also finds a genitive in -OI in the very frequent MUC(c)O(I) and in VEDLLIOGGOI (54). MacNeill correctly considers these *io*-stems (cf. Old Irish *dalt(a)e*, genitive *dalt(a)i* 'fosterling'); but if, as he also rightly implies, -AI may be regarded as standing for -AIS, the query arises whether this -AIS be not a later Ogham writing for \*-OIS. One need scarcely argue the fact that *ai* and *oi* are occasionally

<sup>1</sup> R. A. S. Macalister, *Studies in Irish Epigraphy*, nos. 10, 218, London, 1897-1907; J. MacNeill, 'Notes on the Distribution, History, Grammar, and Import of the Irish Ogham Inscriptions', in *Proceedings of the Royal Irish Academy*, 27 (1909). Section C, no. 15 (pp. 329-70), pp. 343, 345, 357. For the meaning of MUC(c)O(I), Old Irish *moccu*, see ib. 366-7, and cf. A. Holder, *Alt-Celtischer Sprachschatz* 2. 649-50, Leipzig, 1896 sqq.; H. Pedersen, *Vergleichende Grammatik der keltischen Sprachen* 2.16, Göttingen, 1909-13.



found side by side in Ogham (VRAICCI: VROICCI—both equivalent to Old Irish *Froech*, *Fraoch*, *Fraech*, genitive *Fruich*, *Fraoich*, *Fra(e)ich*)<sup>2</sup> and in Old Irish (*máini*: *móini* 'treasures'; *sáib*, *sóeb*: *sóib*, *sóeb* 'false'; *áis*, *áes*: *óis*, *óes* 'people'),<sup>3</sup> just as *au* and *ou* are sometimes confused in Gaulish.<sup>4</sup>

If one may assume, then, that GEBBAIS, ROTTAIS, and TANAIS represent an older \*GEBBOIS, \*ROTTOIS, and \*TANOIS, this genitival \*-OIS must correspond to Indo-European \*-ois, \*-eis as the inflexional termination of the genitive singular of *-i*-stems:<sup>5</sup>

(a) \*-ois: Gothic *anstais* 'χαριτος';

(b) \*-eis: Oscan *aeteis* 'partis'; Umbrian *ocrer* 'arcis, montis';

(c) ambiguous: Sanskrit *agnés* 'of fire', Avesta *garōiš* 'of a mountain', Lithuanian *naktiēs* 'of night', Old Church Slavic *kosti* 'of a bone'.

Here, too, probably belongs the Pamphylian genitive singular *Νεγοπόλεis* if this is a genuine dialectic form.<sup>6</sup> It is noteworthy, moreover, that, just as is here suggested for Ogham -AIS < \*-OIS, Oscan and Umbrian also show the *i*-genitive *-eis* in *io*-stems, as Oscan *kúmben-nieis* 'conventus', Umbrian *marties*, *Martier* 'Martii', a metaplasm likewise found in these dialects in stems in *-o*- (Oscan *sakarakleis* 'sacelli', Umbrian *popler* 'populi'), *-n*- (Oscan *carneis* 'partis', Umbrian *nomner* 'nominis'), *-r*- (Oscan *maatreis*, Umbrian *matrer* 'matris'), and consonants (Oscan *medíkeis* 'of a meddix').<sup>7</sup>

It seems possible to suggest, furthermore, that a genitive in \*-ois underlies the Messapian forms in *-aihi*, *-iaihi*, *-ihi* (e.g. *hidazimaihi beiliihi*; *korahiaihi*, *skroikhsihi*; cf. also perhaps *dalmayyi*; *tabaraihe* | *taotorrihe*; *otormahehe*)<sup>8</sup> if *-aihi* may be explained as evolved from \*-ois-*i*. In Messapian inflection Indo-European *o* > *a*, as is shown by the nominative singular of *-o*-stems and the genitive singular of consonantal stems in *-as* < \*-os, e.g. *dazimas* (genitive *dazimaihi*); *kalatoras*;<sup>9</sup> and

<sup>2</sup> Holder 3. 453-4, 455.

<sup>3</sup> J. Vendryes, *Grammaire du vieil-irlandais* 40, Paris, 1908; R. Thurneysen, *Handbuch des Alt-Irischen* 40-1, Heidelberg, 1909.

<sup>4</sup> G. Dottin, *La Langue gauloise* 60, Paris, 1920.

<sup>5</sup> K. Brugmann, *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*<sup>2</sup> 2. 2. 288-9, Strassburg, 1911.

<sup>6</sup> See F. Bechtel, *Die griechischen Dialekte* 2. 815, Berlin, 1921-4.

<sup>7</sup> R. von Planta, *Grammatik der oskisch-umbrischen Dialekte* 2. 105-9, 150-1, 173, Strassburg, 1892-7.

<sup>8</sup> H. Jacobsohn, *Altitalische Inschriften* nos. 82<sup>a</sup>, 88<sup>a,b</sup>, 89, 97, 113, Bonn, 1910.

<sup>9</sup> *Ib.*, nos. 104, 126, 117.

intervocalic *s* apparently became *h*.<sup>10</sup> The *i* would seem to be the 'genitival' *ī* of Latin and Celtic, as well as of Venetic, Lepontine, and Faliscan (for the three latter cf. *lemetoiī*, *enoni*; *aškoneti*; *cauipi leueli*),<sup>11</sup> so that the Messapian *-aihi*, etc., < *\*-ois-i* would be a double genitival inflectional ending.<sup>12</sup>

<sup>10</sup> Where *s* seems to stand between vowels, it appears really to mark the end of a word, as *hipades*[-] *aprodta*, no. 110<sup>d</sup>; cf. *aprodita*[-] *hipades*, no. 100.

<sup>11</sup> Jacobsohn, nos. 170, 185, 193, 8.

<sup>12</sup> G. Herbig (in M. Ebert, *Reallexikon der Vorgeschichte* 8. 170, Berlin, 1927) regards *-aihi* as equivalent to *-aī* and *-ihi* as equivalent to *-ī*. Cf., in support of his view, Umbrian *ihi* = *ī* (*persnihimu* : *persnimu*), *aha* = *ā* (*spahata* : *spahmu* : *spafu*), *oho* = *ō* (*comohota* : Lat. *commōta*), *ehe* = *ē* (*sehemu* : *semu*) (von Planta, 1. 59); similarly, if rarely, in Old High German, e.g. *emezzihic* : *emezzic*; *gitahan* : *gitān*; *seher* : *sēr* (W. Braune, *Althochdeutsche Grammatik*<sup>3</sup> §152 b, Anm. 3, Halle, 1911).

## INNER FORM

W. LEOPOLD

NORTHWESTERN UNIVERSITY

[Sketch of the use of this term. Marty's understanding of it, while not coinciding with v. Humboldt's usage, is an important contribution to linguistic thought. However, in Marty's sense it is better to speak of 'bridge meanings'. The various other meanings that have been attached to the phrase 'inner form' had better be expressed by less ambiguous terms.]

The term 'inner form' is usually traced<sup>1</sup> back to Humboldt, and it has certainly gained its currency thru him. But Professor Funke of Bern has recently shown<sup>2</sup> that it has its remotest root in Shaftesbury, who speaks of 'inward form' in works of art. The application of the term to language was made by James Harris. Harris was well known to Hamann and Herder (pp. 8, 67), and thru such channels the term reached Humboldt, who took it up and gave it a central position in his philosophy of language. From that time on it has never been abandoned. But it has been used by almost every author in a different sense, and with some it changes its meaning like a chameleon. The following discussion will try to demonstrate and to remedy the chaos existing with regard to the use of the term 'inner form'.

The term has, in agreement with its origin in art, at first the Aristotelian meaning of 'form' as matter refined. Humboldt, therefore, uses it<sup>3</sup> in the same meaning, as the opposite of 'formlessness'. But in his usage the term covers a wider range: the static interpretation is enriched by the dynamic one, 'inner form' also refers to the active force (sometimes called 'inner speech sense') which *gives* form to the raw material. Repeatedly, it is raised to the position of an *ideal* form. Finally, it stands for the psychic correlate of outer form which is

<sup>1</sup> Cf. O. Funke, *Innere Sprachform. Eine Einführung in A. Marty's Sprachphilosophie*. Reichenberg i/B. 1924.

<sup>2</sup> *Studien zur Geschichte der Sprachphilosophie* 47 (Bern 1927).

<sup>3</sup> Cp. W. v. Humboldt: *Die sprachphilosophischen Werke*, ed. Steinthal. Berlin 1883-84.

usually called 'meaning'. But Humboldt is not conscious of the complex character of his idea. It should, however, be noted that Humboldt himself does not use the term 'inner (speech) form' as a technical term, as it came to be used later. In his treatise *Ueber die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwicklung des Menschengeschlechts* the paragraph (11) entitled 'Innere Sprachform' and the following paragraphs discuss this problem without ever using the chapter title as a technical term. In Humboldt's writings one never finds the objective exactness of positivistic science. He works with the intuition of an artist rather than the exact method of a scholar. His writings are deep mines with short side galleries that strike precious veins everywhere, but he never stops to exploit them. That he leaves to his successors, and they have been busy for more than a century without as yet exhausting the treasures.

Steinthal devoted himself with admiring love to the task of working out the inheritance of his master, not without excusable groaning at the lack of preciseness in Humboldt's statements. But in his great awe for the theories of his prophet he did not dare modify much, and therefore the 'inner form' remained more or less unchanged with him except for a second name, the 'etymon.'

The one who, with a strong hand, adapted modern methods to the old truths was Wilhelm Wundt. His monumental work *Die Sprache* is a renaissance of Humboldt in the exact frame of modern empirical psychology. On the pattern of the theory of a psycho-physical parallelism, the physiological and the psychological parts of language are represented as essentially one; every part of either is an exact representation of the other. The conception of an ideal 'inner form of speech' is repudiated (§2.440 ff.): the nineteenth century scientist observes, measures, and classifies, but does not value. For Wundt the 'inner form' is a formative power and the psychical correlate of the 'outer form'; 'meaning' would be a less ambiguous name for it.

All these old connotations of 'inner form'—and some others besides—survive, so that the term still has with almost every author a different sense; for example, Morsbach: trend or spirit of a language (*Festschrift Hoops* 62 f.); Sapir: opposite of 'formlessness' (*Language* 132 f.); William Stern and others: 'meaning' (Marty 639 note) (Cp. *MLJ* 13. 173).

Finally Anton Marty connects a totally different meaning with the term. In his writings, the 'inner form' does not belong in the realm of meaning, but of form, his definition for form being: means of expression.

A trace of his conception may be found incidentally in Humboldt,<sup>4</sup> but essentially he is opposed to Humboldt and Steinthal as well as to Wundt. All of these he characterizes as 'nativists', while he calls his own system an 'empirical-teleological' one. It is necessary to discuss the essential difference between these two positions, in order to explain Marty's conception of 'inner form'. It has a central position in his philosophy of language<sup>5</sup> and seems to me to be so revolutionizing and yet so incontestable, that it is astonishing to see how slow it is in gaining general recognition, tho a number of the best linguists adopted it twenty years ago.

For the nativists like Wundt, the forms of language are a direct outgrowth of the mind, directly and inseparably connected with it: 'Man kann sich beide nie identisch genug denken' (Humboldt 253, ed. Steinthal). Speech is in the first and main place an expression of a psychic condition without any purpose; its employment for communication is secondary. The teleologist, on the other hand, sees in the forms of language the material which the mind uses arbitrarily for the purpose of communicating its thoughts, feelings, and volitions to others.<sup>6</sup> To avoid confusion with the old 'theory of invention', Marty is very emphatic about his explanation that every single act of speech implies a deliberate choice between several possibilities of expression, without the intention, but with the result, of influencing the development of language. The desire to be understood is a constant check on the use of language. Linguistic creation is conscious, tho without plan ('bewusst, aber planlos'). The source of language is not the desire for self-expression (Wundt calls language, in his psychological terminology, an 'Ausdrucksbewegung'), but the desire for communication. Creation is therefore not spontaneous, but purposeful, teleological. The speaker reaches his aim of being understood most safely by using a form which is generally associated with the meaning he desires to evoke. If a universally accepted form is not available, or not satisfactory, he selects another form, the habitual meaning of which is closely enough related to the actually desired one, by either contiguity or analogy, to be likely to lead

<sup>4</sup> Funke, *Innere Sprachform* 121.

<sup>5</sup> Main work: *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie*. Halle 1908 (here cited by page only).

Also: *Gesammelte Schriften*, Halle 1916-1920 (here cited by volume, part, and page).

Other writings: see bibliographies in Funke's publications and in his articles in *Englische Studien*.

<sup>6</sup> Cf. Sapir 17: 'communication, which is the very object of speech'.



the hearer to the correct understanding with the help of the context. Such an auxiliary concept Marty called (with Steinthal), the 'etymon', or, more frequently, the 'inner speech form'. He who first spoke of 'a poor piece of work', of 'the decline of the West', of the 'rise and fall of an empire', evoked in the hearer primarily a conception which was not the desired meaning, but which helped him to grasp it. Thru continued association with the new meaning the original one *may* fade out of consciousness, as we see happen in the word 'moonshine', which now evokes the new meaning more directly than the original one. The adverb 'hardly' can hardly be used any longer in its original meaning, because the occasional meaning has got to be the usual one. Every metaphor falls under this category of 'inner form'. It is the guiding principle in all semasiological development. That means, hardly a word in the vocabulary of any language remains unaffected. It is not necessary, frequently not possible, in etymology to find one idea to cover all the meanings of a given form; it may come to convey, after repeated, chain-like use as 'inner form', the very opposite of its original meaning: 'quite a few' or 'eine schöne Geschichte' or 'awfully sweet' mean the contrary of what they seem to indicate. He who first called an amorous adventurer a 'sheik' or a 'lounge lizard' or a 'drug store cowboy', or in German a 'Schwärenöter', or in Spanish a 'tiburón', availed himself of an auxiliary meaning by boldly choosing a form which served his special purpose better than an accepted one, on account of the meaning habitually connected with it. The linguistic inventor of the 'airship' did the same thing to convey a meaning for which there was no special form in existence.

From his standpoint, Humboldt was right in his contention that metaphors obscure the innate harmony between form and meaning; but he failed to explain the very possibility of such a divergence on the basis of his own theory. Marty's theory denies the existence of such a rigid correlation and makes the association between form and meaning flexible and changeable, thereby supplying a principle for the explanation of all semantic development, taking the logical pedantry out of it, and also the need for improbable hypotheses like 'imperfect apperception'. The man who first spoke of a ship as a 'sail' did not have an imperfect conception or apperception of it any more than did the one who called an electric incandescent lamp a 'bulb' or 'Birne'. He used an auxiliary concept consciously different from the meaning he had in mind, but apt to suggest it to the hearer with the help of the context. The sphere from which a speaker takes most of his auxiliary concepts, and the way

they get the upper hand of the original meanings, is indicative of his individual mentality and of that of his group. That is where personal and national psychology of speech is recognizable: not in the forms as direct correlates of the meanings, as Wundt took it, but in the trend of the auxiliary concepts used to convey the meanings. I suggest to retain for this phenomenon the term 'trend (*Richtung*) in speech' as used by Humboldt, Wundt, and (incidentally) Marty; the latter, however, gives this aspect only passing attention, eager as he is to refute Wundt's parallelism.

The principle of 'inner form' does not apply to the meanings of words alone, but also to the meanings of sentences or parts of them (Marty's 'meaning' includes 'grammatical function'). If we say: 'he will come', the original meaning of *will* is volition. Looking for more exact expression of the idea of futurity than the one current at that time, the English language hit upon this same form as being akin in meaning and apt to produce in the hearer, with the help of the context, the desired psychic reaction; the form *will*, strictly speaking, did not *develop* into an auxiliary of futurity, but was *adopted* as such. The idea of volition is the 'inner form' for the idea of futurity; the old meaning may or may not be present in the new one. The German language chose for exactly the same purpose the idea of entrance into a condition: 'er wird reich', and correspondingly also 'er wird kommen'. As the desire for more exact expression of the meaning progresses, languages rarely coin new forms, but freely choose from the old forms enlisting them in the service of the new meanings, in syntax even more than in vocabulary. That is also why our terms for the realm of abstract thought are taken from the more directly accessible physical world, and those for time often from those for place.

Marty seemed to think that his interpretation of the term 'inner form' was the original one, and that others misinterpreted it.<sup>7</sup> He gives an outline of the history of the 'principle' (p. 154), because he thinks it 'one of the most important in the entire philosophy of language and general grammar'. This is rather a naïve illusion: Marty's 'inner form' has very little to do with the phenomena previously so called; it is his own discovery—in my opinion, a very remarkable one.

But by now the expression 'inner form' has accumulated so many different meanings (there are more than I have enumerated) that it is almost certain to mislead and thereby miss its prime aim of explaining. It therefore seems advisable in this particular case to abandon the

<sup>7</sup> *Untersuchungen* 151, 156f.

traditional term and coin new ones. Marty himself is aware of its inadequacy for his own purpose and invites proposals for a better one (p. 157). He uses himself incidentally, as an auxiliary concept, the term 'Band der Assoziation'. Professor Funke takes this name up<sup>8</sup> and also speaks repeatedly of 'das Bildhafte'.<sup>9</sup> Both of these names are better than 'inner form', but not quite satisfactory. May I propose instead the term 'bridge (Brücke)'. This expression has the advantage of being applicable in two ways: as 'bridge meaning' (or 'bridge concept') for the auxiliary concept bridging the gulf between form and meaning, Marty's 'inner form'; and as 'bridge form' for the form which connects the old and the new meaning.<sup>10</sup> It is inoffensive to those who want to classify it with either form or meaning. And it is not burdened with the superabundance of associations which stifles the old term 'inner form' as a whole and in its parts.

My definitions would therefore be: A *bridge meaning* is an auxiliary concept which serves to suggest to the hearer a new meaning for an old form. A *bridge form* is a form which either genetically or descriptively links two different meanings together.<sup>11</sup> Its use as such may be individual or general, habitual or actual, usual or occasional,<sup>12</sup> local or universal, adequate or inadequate. Its purpose may be esthetic or logical,<sup>13</sup> momentary or permanent, serious or facetious; it may be a new, or more exact expression, or merely a variant for an old one.

To illustrate: In 'begreifen', 'comprehendere', 'to grasp', the concrete idea would be the *bridge meaning* between the sound-form and the abstract meaning; and the phonetic form would be the *bridge form* between the concrete and the abstract meaning. In 'he stood convicted', the form 'stood' is the bridge between the meanings of 'to stand' and 'to be convicted', and the auxiliary concept of 'standing' is the bridge between the form 'stood' and the new meaning it is intended to suggest, namely the result of an action.

<sup>8</sup> *Innere Sprachform* 123.

<sup>9</sup> *Sprachphilosophie* 62, 129.

<sup>10</sup> I owe this extended application to a discussion with Professor Curme, who accepts my term.

<sup>11</sup> It will be noted that the term 'bridge' itself is such a bridge.

<sup>12</sup> Paul's terminology, *Prinzipien* § 51. Cf. Marty's criticism, *Untersuchungen* 497 ff.

<sup>13</sup> Professor Cassirer's incidental distinction between theoretical shades of meaning and emotional shades of appreciation (*Philosophie der symbolischen Formen*, 1. 273, Berlin 1923) might be developed into a fruitful extension of Marty's bridge principle.

There is one more bridge function, which is not taken into account by Marty.<sup>14</sup> As Professor Jaberg indicates (*Herrigs Archiv* 136. 106), the hearer is sometimes confronted with a word which does not convey any meaning (or not a clear one) to him (let us say, 'adipose tissue'). In such a case the speaker—to stay within the theoretical conception of a conversation—has to stop to explain the word by another word used for suggesting the same meaning (say 'fat'). Here we have a meaning bridging the chasm between two forms, the intention being not, as usually, to associate a new meaning with an old form, but an old meaning (that of 'fat') with a new form ('adipose tissue'), the bridge serving traffic in both directions. In this group belongs translation from one language into another. The form 'father' conveys in English the same meaning as 'Vater' in German, 'père' in French, 'padre' in Spanish, 'pater' in Latin, etc. The meaning is a bridge of many arches connecting the forms of the different languages.

So much about the term 'inner form' in Marty's interpretation. To replace it in its value of 'inner correlate of the outer form', I think 'meaning' would be adequate, and this word would at the same time cover the 'formative power', since it is the meaning which governs the expression. For 'inner form' of a language denoting its 'spirit', I have recommended above the old term 'trend'. For the 'opposite of formlessness', 'inner form' would do. But since this expression is ambiguous beyond hope, it seems best to abandon it in this application too, tho it is a little hard to replace in English. In German I should suggest 'innere Geformtheit' as a means of avoiding misunderstanding. But upon closer inspection, 'inner form' in this interpretation comes very near to, or is even identical with, 'meaning'.

With the adoption of such terms, the present confusion would be cleared up, and the venerable term 'inner form' could be relegated to the museum of linguistic antiquities, as a witness of the struggle and progress in the field.

<sup>14</sup> Where Marty speaks of definitions (see index in *Untersuchungen*), he thinks of circumscriptive or analytic definitions, not of synonymic ones.

## BOOK REVIEWS

**Éléments de la Grammaire Hittite** (Manuel de la Langue Hittite II). Pp. iii + 188. By LOUIS DELAPORTE. Paris: Adrien Maisonneuve, 1929.

The appearance of a systematic grammar is an important event in the history of Hittite studies. Hrozný's *Die Sprache der Hethiter* (Leipzig, 1917) was not so much a description of the language as an argument designed to show that certain grammatical forms and certain words had certain values. The treatises by Friedrich and Forrer (*Zeitschrift der Morgenländischen Gesellschaft* 76. 153-73, 202-15 [1922]) did not claim to be more than preliminary outlines of the grammar. Delaporte's book will therefore form an essential part of the equipment of every student of Hittite.

The new grammar is severely descriptive, and that is altogether proper at the present stage of our knowledge. Many details of phonology and morphology must be investigated before a comparative grammar of Hittite can be written. Furthermore, the author has been content to do little more than compile the results of studies previously published; and here again he deserves praise for a decision which has given us a serviceable tool today rather than a better one some years hence.

A peculiarly valuable feature of the book is the inclusion of passages which illustrate the usage of the forms given in the paradigms. Indeed it would have been well to increase the number and variety of such citations. Our knowledge of the language is still so defective that new interpretations will inevitably render many of Delaporte's statements obsolete; but the texts upon which the statements are based will remain valid.

The author would be the first to admit that his account of the Hittite language is incomplete. The syntax (pp. 103-17) is particularly sketchy. For example, the only case constructions mentioned are apposition (including partitive apposition), the adnominal genitive, and the partitive genitive. This is not justified by any unusual regularity in the use of the Hittite cases: place where may be denoted either by the dative-locative or by the ablative; place whither by the accusative or the dative-locative; means by the instrumental or the ablative; etc.



In my opinion the most serious error in the book is the adoption of Forrer's theory of a locative case ending in *a* and denoting end of motion. As I have shown (LANGUAGE 5. 139-46), these forms are in part accusatives with loss of final *n*, and in part dative-locatives with change of prehistoric final *ai* to *a* before words beginning with *a* or *e*.

Other corrections that should be made by every user of the book are these:

§81: The nominative-accusative neuter of vowel stems often ends in *n* (see LANG. 5. 140). Neglect of this fact leads Delaporte (§294) to interpret *idalun kuitki memiyan* 'any evil word' as a personal substantive modified by a neuter pronoun. (Cf. Friedrich, *Staatsverträge des Hatti-Reiches in Hethitischer Sprache* 1. 43).

§115 and § 124: The instrumental and ablative singular are confused.

§170: The genitive singular and nominative plural are confused.

§198: The participles in *nt* are active only when derived from intransitive verbs; ordinarily they are passive. See Friedrich, *ZDMG* 76. 168.

§262: Delete lines 3 and 4; the first example given disproves the statement.

§264: The accusatives in the first example are surely direct objects.

Misprints are frequent, but few of them will cause any serious difficulty.

E. H. STURTEVANT

**Indogermanische Grammatik, Teil V: Der Akzent.** Pp. xii + 411. By HERMANN HIRT. Heidelberg: Winter, 1929.

The present volume serves also as a revision of the author's volume, 'Der Indogermanische Akzent,' published in 1895 and long out of print. The revision is thoroughgoing; there is much new material and new bibliography, as well as many new views. The introduction (1-29) states the problems and defines them; then there is a long section (30-198) discussing the accent in each of the important IE languages, and another long section (199-403) on the accent in primitive IE, in which each part of speech and each type of formation is discussed separately, and the accent of the phrase and of the sentence also finds its place. Indices (404-11) close the volume.

The volume is most stimulating. The wide learning and keen insight of Professor Hirt are everywhere evident. Of a number of items, I select for mention the interpretation of the accent of verbs (293 ff.) and his remarks on the stress accent of verse and the musical accent of the word in ancient Greek (33), which I here quote: 'Zunächst brauchen bekann-

termassen in Griechischen Versiklus und Wortton durchaus nicht zusammenfallen. So schwer, ja fast unmöglich uns das Lesen der griechischen Verse mit Berücksichtigung beider Momente wird, so leicht bewältigen diese Schwierigkeit Menschen, die von Haus aus wesentlich musikalischen Akzent haben. Ich habe dies verschiedentlich in meinen griechischen Übungen mit Südslawen und Magyaren beobachtet.' It gives me pleasure to find this confirmation of the view which I have expressed elsewhere (*TAPA* 51. 19-29; *Rev. intern. de l'Enseignement* 45. 321-35), that there is no real difficulty in a similar method of reading Latin verse (pace Kroll, *Glotta* 16. 208).

On the other hand, I cannot follow Professor Hirt when he casts aside (72 ff.) the primitive Italic accent on the initial syllable, which has for decades been viewed as the cause of syncope and vowel weakening in non-initial syllables in Latin. Unlike the French scholars, who maintain that there never was an accent of energy in Latin on any syllable until after the classical period, Hirt explains these phenomena of vowel loss or change as due either to the original IE accent or to the historic Latin accent. It is true that this will cover most of the instances, notably the changes in the second part of compounds, which was in IE enclitic to the adverbial 'prefix,' and the changes in the final syllable, which was always unaccented in Latin. For *dexter*, in comparison with the identical cognate Greek *δεξιτερός*, Hirt assumes a new secondary accent on the initial syllable, due to distance from the primary accent. But there are other examples which will not come under his formulations: *Achivī* from *\*Achāifōl*, *olīva* from *\*elāifā*, *balineum* *balneum* from *βαλανείον*, *euntem* from *\*eontem* (cf. *lōvra*). The strong syllable, i.e., the syllable in which no change occurs, is in these words that which is unaccented according to the Greek from which the words are borrowed, or in the primitive IE, and was not accented in Latin according to the penultimate rule; and the syllable in which weakening occurs is precisely that which should receive the accent by the penultimate rule. In *balneum*, the initial accent has permitted a shortening in the penult, with the result that the Latin accent stays on the initial syllable. In my opinion, therefore, an initial accent must be posited for a pre-Latin stage of Italic.

Now some special items. 36, 15: The Athenians did not count *ω* as short in *πόλεων ἀνάγωων δύσερως*; these words have analogical accents, or accents fixed before the working of the metathesis of quantity. 38 fin.: A short vowel plus liquid or nasal formed a diphthong in Greek, and therefore could be pronounced with the circumflex; but the circumflex

should be written over the liquid or nasal; Hirt prints such examples with the circumflex over the short vowel, which gives a wrong interpretation. 60. 10 *itá-que*: such an accentuation in Latin, on the short vowel before the enclitic, is very doubtful. 69-70: Hirt takes here a sane middle ground as to the nature of the Latin accent, whether stress or musical, without making a specific pronouncement. 76. 6: To derive -*ē* of the Latin infinitive from an unaccented diphthong seems to me more difficult than to admit that -*i* sometimes remains and sometimes disappears. 97 fin.: Hirt regards the elimination of the consonantal variation in some Gothic words as due to an early shift of accent, so that these words escaped the operation of Verner's Law; but the old explanation that it was due to analogy is much more probable.

210. 32-3: Syllabic divisions like *ἐ-κτός* and *ἄ-σχετος* are forbidden by the long quantity of the initial syllables in these words. 230. 1: There is a good point here, that the difference between the nominative and the genitive form of \**ped-* is due to old accentual difference; but it is not followed up as it might be. 237.8: *salt* is given as the Latin nom. of a neuter noun; but the form is *sal*, without the dental, which never appears in the Latin substantive, and the word is masculine in Latin, not neuter except in a very few old passages.

331.8: The pronoun *te* is said to be enclitic in the Horatian passage *Carm.* 1. 8 *per omnis te deos oro*, but the *te* really begins a line and bears a metrical accent:

Lydia, dic, per omnis

*te* deos oro, Sybarin cur properes amando . . .

so that it can hardly be a valid example of enclisis, though the pronoun in the position between closely connected words, as here, is normally enclitic, as Hirt says. 362 med.: Two wrong references: for *Cic. Tusc.* 2, 1, 5 and 2, 1, 6, read 2, 2, 5 and 2, 2, 6. 362 ftn.: The Greek is here translated beautifully into German with retention of the word-order; but such procedure would be impossible in translating this passage into French or English. 383.9: To the examples of the pronoun enclitic to a preposition, one might add the (American) English *give it to me*, where both pronouns are unemphatic and the rhythm puts an accent on the preposition. 387.1 *medias in res* is a bad example of adjective and noun separated by the enclitic preposition, for Horace *AP* 148 wrote *in medias res*.

Misprints are rather numerous, though not usually very misleading. But the volume as a whole is most stimulating, and we are grateful to Professor Hirt for his work. Let me quote also the last words of the

text, which contain a truth too often overlooked: 'Eine einheitliche einfache Betonung lässt sich für das Indogermanische nicht erschliessen. Das ist verständlich. Denn dieses steht weder am Anfang noch am Ende einer Entwicklung, sondern es ist eine Sprache wie jede andere.'

ROLAND G. KENT

**Geschichte der indogermanischen Sprachwissenschaft. II: Die Erforschung der indogermanischen Sprachen. Band 4, 1. Hälfte: Indisch.** Pp. 154. By WALTHER WÜST. Berlin & Leipzig: Walter de Gruyter & Co., 1929.

In ten sections of very unequal length, and with some subdivisions, this book presents a compact and excellent survey of Indological studies, so far as they are important for historical linguistics, from the beginning to the present day. The sections are: I. Vorbemerkung, a brief statement of plan.—II. Land und Leute, 5 pp.—III. Die Anfänge der Forschung, 18 pp., down to the end of the 1830's; based chiefly on Windisch's well-known work in the *Grundriss der indo-arischen Philologie*, and supplemented by references to early views on various phases of the subject in the following sections.—IV. Sprachliche Gesamtentwicklung und -gliederung, 26 pp., with a detailed *Stammbaum der indo-arischen Sprachen*.—Va. Die sprachgeschichtlich wichtigsten Quellen (Texte, Kommentare, Ausgaben), 18 pp., dealing with the most important Vedic and epic texts (it would have been impossible to include the linguistically less important Classical Sanskrit), and much more briefly with Pāli, inscriptions and coins, Prakrit, and the modern vernaculars.—Vb. Schrift und Verwandtes; Metrik, Akzentuation; 12 pp.—VIa. Lautlehre, 16 pp., in some detail.—VIb. Sandhi, 1 p., very scant.—VIc. Formenlehre, 8 pp.—VId. Wortbildungslehre und Komposition, 1½ pp.—VIe. Syntax, 6 pp.—VII. Grammatiken, 15 pp.—VIIIa. Deskriptive Lexikographie, 8 pp.—VIIIb. Wortforschung (Etymologie, Semasiologie, Lehnwörter, Eigennamen), 6 pp.—IX. Ueberblick und Ausblick, 6 pp.—X. Bibliographie, 8 pp. There is appended, on seven pages separately numbered 105–11, to go at the end of Reichelt's work, an Index of Scholars to this and the companion volume on *Iranisch*, by Reichelt; unfortunately there is no subject-index, which would have made the book more valuable for handy reference; nor is there a table of contents.

It will be seen that the ground covered is enormous; and considering the severe limitations of space, it seems to the reviewer that it is covered remarkably well. Surely not much work of real linguistic importance



today is passed over in silence. Early stages are interestingly and adequately handled. Suitable tribute is paid to the great landmarks of scholarship, such as the St. Petersburg Lexicon (p. 131f.), the grammars of Whitney and Wackernagel (p. 124f.; very sound and penetrating is the defense of Whitney's deliberately non-comparative method, which is precisely the reason why his grammar is still 'nach fast 50 Jahren . . . schlechthin unersetzlich'), Bloomfield's Concordance (p. 57), etc. And yet justice is done, at least in a word or two, to countless minor contributions, including many journal articles.

The author has evidently, and very properly, striven to present all matters objectively, or at least to speak as a representative of generally accepted scholarly opinion. It was, however, impossible at times to avoid at least the implication of critical judgments on debatable matters, especially in dealing with certain problems of phonology; and here opinions may differ as to the views favored. The treatment of what is called 'Brugmann's law' (IE *o* in open syllables > Skt. *ā*), p. 85, is deficient even as a mere historical statement. Wüst leaves the question open, or rather seems to favor the alleged law; he fails to record the fact that it was disowned by its parent, Brugmann himself (*IF* 32.191, note 2); nor does he mention Hirt's important attack on it in *IF* 32, altho Hirt deals effectively with the very points which Wüst regards as the strongest arguments for the 'law' (the perfect verb-forms, see Hirt p. 313ff., and the causatives, *ibid.* 247ff.). The 'law' was not improperly declared 'dead' by Hirt in his *IG Vokalismus*, p. 19. To be sure the recent work of Kurylowicz (whom Wüst nowhere mentions), e.g. in *Symb. gram.* 1.95-104, may succeed in reviving it, but if so only by revolutionary changes in our accepted system of IE phonology, changes of which Wüst manifests no knowledge; cf. Debrunner's note in *IG Jbch.* XIII, p. 67.

Conversely it may be questioned whether Bloomfield's explanation of *o* (and *e*) for *as* before sonants, as non-diphthongal and retaining the quality of IE. *ō* and *ē*, is 'endgültig erledigt' (p. 85). A very recent and high authority, viz. Hirt, *IG. Gram.* IV, p. 264, derives Skt. *sēdima* from *\*sezdimā*, which certainly seems to imply the principle set up by Bloomfield. No other satisfactory explanation of this phenomenon has ever been proposed; Wüst offers none at all, and the suggestions of Wackernagel I p. 338 (*e* or *o* < *az* 'perhaps under the influence of neighboring sounds,' without any attempt at a more specific statement; but in that case why do not 'neighboring sounds' ever change other *a* or *ā* to *e* or *o*?), and Bartholomae *KZ* 29.572 (either as Wackernagel, or else accented *áz* > *e* originally, and unaccented *az* > *o*), seem far less plausi-



ble than Bloomfield's. That there are difficulties in Bloomfield's theory need not be denied;<sup>1</sup> altho the one quoted by Wüst from Windisch (nom. plur. Skt.-*as* < IE-*es* before sonants gives Skt. *o*, not *e*) is not hard to explain by analogy (both IE-*os* and -*es* became and remained alike Skt.-*as*, -*aś*, -*aḥ* etc. before surds, hence it is quite conceivable that the much rarer<sup>2</sup> ending IE-*es* was treated like IE-*os* before sonants); and Wüst ignores cases like *edhi* < IE. \**ezdhi*, tho he seems to admit that the Māgadhi forms in -*e* support Bloomfield. Anyhow the problem is there: if a uniform Aryan *az* has become (usually) *o*, or (sometimes) *e*, and if this distinction has no relation to the IE precedents of that *a(z)*, then how is this astonishing fact to be explained? That Aryan *a* (or *ā*) should change into either *e* or *o* is sufficiently anomalous (not indeed in general linguistics, but in Sanskrit, where it has no clear parallels), not to mention the additional difficulty of the distinction between *e* and *o*, which appears quite unmotivated by any actually observable facts in Sanskrit. We *must* face the question; and to this reviewer Bloomfield still seems to have offered by far the most reasonable explanation to date. It surely cannot be called 'erledigt' until some more plausible one is produced.

On p. 140 we miss a reference to the recent investigations of linguistic borrowings into Sanskrit from aboriginal (non-Aryan) languages which have been published by various French scholars (Sylvain Lévi, Przyluski).

Such defects as these are, however, both infrequent and of minor importance, and it seems ungracious to complain of them in view of the difficulty of the task and the generally competent and interesting way in which it has been discharged.

FRANKLIN EDGERTON

*Yale University.*

**Konkordanz Pāṇini-Candra** von DR. BRUNO LIEBICH. Breslau: Verlag von M. & H. Marcus, 1928. (*Indische Forschungen*, begründet von Alfred Hillenbrandt, in zwanglosen Heften herausgegeben von Bruno Liebich, 6. Heft.)

<sup>1</sup> The form in which it was stated by Bloomfield in vol. 3 of *AJP*. undoubtedly needs some modification, and it is my impression that Bl. clarified his views in some respects in later years, tho I cannot lay my hands on published statements of his. Oldenberg's criticism in *Prolegomena* 448ff. is directed against Bloomfield's assumption of graphic influences, a point which is by no means essential to the theory and which should of course be dropped.

<sup>2</sup> See Bloomfield, *AJP*. 3.33f.

In this pamphlet Professor Liebich makes another contribution to our knowledge of the grammatical literature of India. The treatise of the Buddhist grammarian Candra (or Candragomin) was recovered for the modern world by patient search<sup>1</sup> and made accessible by the labors of Professor Liebich;<sup>2</sup> he has also determined<sup>3</sup> Candra's date (fl. 470 A.D.). The present pamphlet is a concordance showing which rules of Pāṇini were used by Candra: so far as they fell within the scope of his work, Candra used almost all of them. Of the exceptions a few were ruled out by the different mechanics of Candra's work, and a few are otherwise vouched for as ancient. On the whole, Liebich concludes (p. 49) that in the fifth century of our era the text of Pāṇini's *Rules* had the form which it has today.

The descriptive grammar of Sanskrit, which Pāṇini brought to its highest perfection, is one of the greatest monuments of human intelligence and (what concerns us more) an indispensable model for the description of languages. The only achievement in our field which can take rank with it is the historical linguistics of the nineteenth century, and this, indeed, owed its origin largely to Europe's acquaintance with the Indian grammar.

Indian grammar has been undervalued and neglected by many linguists, especially in America. In part this neglect is due to a misconception of its historical place. European scholars naturally supposed that Sanskrit grammar bore the same relation to Sanskrit literature as Latin grammar bears to Roman literature. They assumed that the classical Sanskrit of literature represented a real development (or, perhaps, stagnation) and that the so-called 'native grammar' pictured, more or less accurately, some stage of this evolution. When they found in the grammar forms which they had not seen in the literature, they

<sup>1</sup> See S. K. Belvalkar, *An account of the different existing systems of Sanskrit grammar*, Poona 1915, p. 58.

<sup>2</sup> Text, Leipzig 1902 (*Abhandlungen für die Kunde des Morgenlandes* 11, 4); text with Candra's own commentary, Leipzig 1918 (same, 14); analysis, *Sitzungsberichte der Heidelberger Akademie der Wissenschaften phil.-hist. Kl.*, 1920, 13.

<sup>3</sup> See *Jahresbericht der schlesischen Gesellschaft für vaterländische Kultur* 81 (1903), iv, 24. On p. 47 of the present pamphlet Liebich refers to this article with the words 'in meinem Aufsatz: Das Datum Candragomin's und Kalidasa's (1903)'. The same reference without even the date, Belvalkar 58. One needs at least *Orientalische Bibliographie* (Berlin 1888 ff.) to learn where the article appeared. Such references, not uncommon among writers on Sanskrit grammar, create an unnecessary hardship. I shall try in what follows to give an elementary bibliography of the subject.

accused the grammarians of fraud. Bopp,<sup>4</sup> for instance, so judged of a form like *ati-nu-* '(gone) out of the ship' (*nau-* 'ship'), a form which (whatever its history<sup>5</sup>) would be questioned by no modern linguist. Consequently, the European saw in classical texts a primary document, in the grammar a secondary one and unreliable at that. This was Whitney's view, to which he gave unfortunate expression.<sup>6</sup> We now know that this view was the reverse of the truth. Far from inventing forms, Pāṇini was describing a colloquial speech, a conservative upper-class language, to be sure, but a language native to him and used in everyday life by the Brahmins in his part of northwestern India. It is much the same language as that of the oldest Brāhmaṇas and Sūtras.<sup>7</sup> After Pāṇini's time Sanskrit spread over India as an ecclesiastical, literary, and official language. From the first century B.C. to the fourth century A.D. it superseded the Prākṛits as the language of inscriptions.<sup>8</sup> The first step in upper-class education from that time on and largely to the present day was the acquisition of Sanskrit. It began, somewhat harshly and with bad linguistic pedagogy, by the child's memorizing Pāṇini's grammar or one of the grammars derived from it. Classical Sanskrit literature was written by men who had learned Sanskrit composition from grammar and dictionary and used these books as their guides and authorities for correct usage. Commentators on works of this literature hasten to justify unusual forms by a reference to the grammar. Deviations from the forms prescribed by Pāṇini are merely errors in Sanskrit composition.

A second cause of our neglect of Indian grammar was a sense of superiority: because the Indians had not discovered the history of language,

<sup>4</sup> *Ausführliches Lehrgebäude der Sanskrita Sprache*, Berlin 1827, p. 325; cf. Liebig, *Panini*, Leipzig 1891, p. 42.

<sup>5</sup> Brugmann, *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*<sup>2</sup> 2. 1. 137, Strassburg 1906.

<sup>6</sup> AJP 5.279 (1884). The crucial point is Whitney's belief that 'Sanskrit, even that of the most modern authors, even that of the pandits of the present day, is the successor, by natural processes of tradition, of the older dialects' (p. 294). The successors, in this sense, are of course the modern Indo-Aryan vernaculars; the tradition of Sanskrit is a learned one, based on phonetics, grammar, and dictionary. Whitney's article was reprinted with acknowledgment of the source but no word of comment, in the *Indian Antiquary* 14.33 (1885)—a quiet and overwhelming reproof, since in those days the *Indian Antiquary* was publishing the masterly articles of R. G. Bhandarkar and F. Kielhorn. See also G. Bühler, *Indian Antiquary* 23.141 (1894); 250, and Liebig, *Panini* 51.

<sup>7</sup> Liebig, *Panini* 50.

<sup>8</sup> Otto Franke, *Pāli und Sanskrit*, Leipzig 1893.

their work was supposed to be negligible. One forgot that the comparative grammar of the Indo-European languages got its start only when the Pāṇinian analysis of an Indo-European language became known in Europe. Historical linguistics depends upon a comparison of two or more languages or stages of the same language. Any gap in our knowledge of the languages or stages that are to be compared, sets an absolute limitation upon our results. If the accentuation of Sanskrit and Greek, for instance, had been unknown, Verner could not have discovered the pre-Germanic sound-change that goes by his name. Indo-European comparative grammar had (and has) at its service only one complete description of a language, the grammar of Pāṇini. For all other Indo-European languages it had only the traditional grammars of Greek and Latin, woefully incomplete and unsystematic. In the main, comparative and historical Indo-European grammar gathered its descriptive data as it went along. If one had had a complete and scientifically organized descriptive grammar, such as we have for classical Sanskrit, for a representative older stage of every Indo-European language (say, for Platonic Greek, Plautine Latin, Alfredian English, and so on), Indo-European comparative grammar would have developed with a speed and accuracy beyond our conception.

The third factor which led to the neglect of Indian grammar was its form. Pāṇini's treatise is intelligible only with a commentary; even with the many commentaries that we possess—and they contain a vast amount of intelligent and even brilliant scholarship—several lifetimes of work will have to be spent upon Pāṇini before we have a conveniently usable exposition of the language which he recorded for all time. The source of the difficulty is Pāṇini's brevity 'which a student of grammar is often likely to regard as the curse of his lot'.<sup>9</sup> Pāṇini's grammar consists of less than four thousand *Rules* (Sūtras, many of them only a few syllables long, few covering more than a line, in all some 80 pages of print), a *List of Roots* (Dhātupāṭha, some 25 pages of print), and a *List of Groups* (Gaṇapāṭha, 50 pages with liberal spacing).

One means by which Pāṇini attained this condensation is altogether commendable and, indeed, of great scientific importance, and is due to the thorough working up of the data. Whenever two or more forms have any feature in common, that feature is stated once and once only for all of them. If the common feature is present in an indefinite number of forms or in all forms showing a certain characteristic, then a general statement suffices: the forms are regular; if the common feature is

<sup>9</sup> Belvalkar, *Account* 23.



present in only a limited number of forms and is not a function of any definable characteristic, then the forms are irregular and are listed by citation in the *Rules* or as a group in the *Gaṇapāṭha*. In such a grammar the Latin nominative singular in -s, for instance, would not be mentioned over and over again (*servus, urbs, manus, facies*), but only once, and there would be a definition in the briefest possible unambiguous terms of the nouns whose nominative singular lacks this ending.

A second means of compression is not so directly implicit in the scientific form of presentation, but nevertheless greatly furthers it, much as a brief and accurate notation furthers mathematical reasoning. This second means is the use of abbreviations, silent letters, and arbitrary designations. Abbreviations are formed by writing the first member of any series with a silent letter which is placed arbitrarily at the end of the series. For instance, as a kind of preface to the grammar, the alphabet is arranged (in the so-called *Çivasūtras*) in a carefully planned order, with silent letters scattered through at certain points. By naming a single letter and one of the subsequent silent letters Pāṇini forms an abbreviation for all the letters (sounds) that intervene, including the letter named. This enables Pāṇini to say, for example, *jhal* for 'stop, sibilant, or *h*'. Silent letters and short arbitrary names for certain features—the meaning of all these is of course explained in special rules—further shorten the discussion. Thus, *kañ* denotes the suffix -a- by which *tā'dṛṣa-* 'such' is derived from *tad-* 'that' and *dṛṣ-* 'see'; the *k* and the *ñ* are silent letters which inform us as to the vowel-grade, accent, and other features of the derivative. This shorthand notation gives Hindu grammatical discussion a sweep and power which makes our terminology seem halting in comparison.

A third method of abbreviation is less happy. Although the basic arrangement of Pāṇini's treatise was relevant to the subject-matter, he subordinated this logical order to a requirement of conciseness: every rule is so placed that as many as possible of its words can be replaced by ditto marks because they repeat words of the preceding rule. For this purpose so many rules are torn from their natural place that the basic structure of the grammar is to a large extent obscured. Worst of all, the ditto marks (*anuvṛtti*) and their cessation (*nivṛtti*) at the end of a series of rules are not actually written in the treatise as we have it.

A fourth and even more unfortunate means of compression prevents our rearranging the rules. Even if one restores the words that have been replaced by imaginary ditto marks, one cannot rearrange the rules in natural order, because the position of a rule is one of the features



which determines its validity (with relation to apparently conflicting rules) and its order of application (with relation to other rules that apply to the same form). Other features also, such as the more or less specific character of its wording, have to be considered in deciding whether a rule is applicable and in what relative order. For instance, an English grammar of the same kind might contain the following rules about nouns: (1) The plural adds [z]; (2) after unvoiced sounds [s]; (3) after sibilants and affricates [ez], and it might then be the order of these three rules which told us which one to apply in any given case, the later rule (3) outweighing (1) and (2). For certain irregular noun-plurals we should have the rule (4) *calf* etc. (the list would appear in the Gaṇapāṭha) voice the final spirant; here it might be the more specific nature of this rule which told us that it was to be applied *before* we made the choice between rules (1) and (2), or it might be the fact that this rule dealt with a sound farther from the end of the finished word, *calves*.<sup>10</sup>

The first great ancillary work to Pāṇini's grammar is the *Mahābhāṣya* of Patañjali.<sup>11</sup> In this treatise Patañjali discusses the *Supplementary Aphorisms* (vārtikas) of his predecessor Kātyāyana, which correct, supplement, eliminate as unnecessary, or justify the rules of Pāṇini; Patañjali gives a critique of Kātyāyana's vārtikas, deciding for or against each one, and adds vārtikas of his own. Already in this treatise much effort goes toward determining the real intent of Pāṇini's rules; since then many a life-work has gone into the task of elucidation. The chief later commentary is the *Kācīkā* of Jayāditya and Vāmana.<sup>12</sup> A great

<sup>10</sup> While some such principles of interpretation (*Paribhāṣā's*) are given by Pāṇini in the form of rules, others are merely implicit in his treatise; these latter are discussed by Nāgojibhaṭṭa in his *Paribhāṣenduṣekhara*, ed. and translated into English by F. Kielhorn, Bombay 1868-74 (*Bombay Sanskrit Series*, nos. 2; 7; 9; 12).

<sup>11</sup> The *Mahābhāṣya* was edited by F. Kielhorn, Bombay 1880-90 (*Bombay Sanskrit Series*, nos. 18; 20; 21; 22; 26; 28; 30), second edition, 1892-1909. The commentary of Kaiyaṭa and the sub-commentary of Nāgojī are included in an edition by several pandits, Benares, samvat 1943 (A. D. 1887), which is not accessible to me; also in a model edition by S. D. Kudāla, Bombay 1917 ff., of which only two volumes (one third of the work) have so far appeared. Belvalkar's account (pp. 28 ff.) of the *Mahābhāṣya* is to be corrected in one regard by F. Kielhorn's essay, *Kātyāyana and Patañjali: their relation to each other and to Pāṇini*, Bombay 1876, in another by the citation on p. 2 of the pamphlet here under review.

<sup>12</sup> Ed. by B. Sāstri, Benares 1876-8, second ed. 1898; an excellent introduction is B. Liebhich's *Zwei Kapitel der Kācīkā*, Breslau 1892; commentaries on the *Kācīkā* are Jinendrabuddhi's *Kācīkāvivaraṇapañjikā* (known also as the *Nyāsa*), ed S. C. Chakravarti, Rajshahi (Bengal) 1913 ff., and Haradatta's *Padamañjarī*, printed in *The Pandit*, vols. 10-21 (1888-99).

step forward was the thorough indexing of Pāṇini, a task performed by Otto Böhtlingk.<sup>13</sup> An English exposition of the *Rules*, based on the *Kācīkā*, is given by S. C. Vasu, *The Aṣṭādhyāyī of Pāṇini*, Allahabad, 1891 ff.

The natural idea of rearranging Pāṇini's rules and supplying the dittoed words was carried out by Bhaṭṭojī Dikṣita in his *Siddhāntakaumudī*.<sup>14</sup> For the reasons above stated the attempt was foredoomed to failure: the *Siddhāntakaumudī*, a splendid and brilliant piece of work, is as hard to deal with as Pāṇini. It has given rise to a large ancillary literature of its own.<sup>15</sup>

An attempt to expand Pāṇini's doctrine into the form of a modern grammar was Theodor Benfey's *Vollständige Grammatik der Sanskritsprache*.<sup>16</sup> If one did not know of Benfey's many other achievements, one would take this grammar for the work of a lifetime. In the course of it he must have caught Pāṇini's hatred of repetition, for, after all, Benfey's treatise is too compact to serve the general linguist.

Franz Kielhorn, the foremost European student of Indian grammar, gave a greatly abridged summary of the Pāṇinean doctrine in his *Grammar of the Sanskrit Language*.<sup>17</sup>

The non-Pāṇinean systems of Sanskrit grammar, such as Candra's, are in reality little else than rearrangements and simplifications of Pāṇini's doctrine.

A brief survey of both the Pāṇinean and the later systems is given by Belvalkar in his above-cited book. A good introduction to the Indian systems is a series of articles by Liebich, *Zur Einführung in die indische einheimische Sprachwissenschaft*.<sup>18</sup>

The extreme conciseness of Pāṇini and of his imitators impresses the modern reader in several ways: in part it merely obscures the content, in part it rests upon a useful and elegant notation, and in part it inheres in the scientific treatment and, once appreciated, will impose itself upon

<sup>13</sup> *Pāṇini's Grammatik*, Leipzig 1887; Böhtlingk's first edition, Bonn 1839-40, had not the indices.

<sup>14</sup> Ed. with an English translation by S. C. Vasu and V. D. Vasu, Allahabad, n.d.

<sup>15</sup> An abridgment and simplification is Varadarāja's *Laghukaumudī*; in J. R. Ballantyne's edition (with English translation, fourth ed., Bombay 1896) it serves as an excellent introduction to Indian grammar.

<sup>16</sup> Leipzig 1852, the *Erste Abtheilung* of his *Handbuch der Sanskritsprache*.

<sup>17</sup> Fourth ed., Bombay 1896.

<sup>18</sup> *Sitzungsberichte der Heidelberger Akademie der Wissenschaften, phil. hist. Kl.* 1919, 4; 15; 1920, 10; 13; cf. also his *Materialien zum Dhātupāṭha*, *ibid.*, 1921, 7.

every treatise whose aim is description of a set of linguistic habits. This scientific condensation, which places every feature into its proper setting, is one of the two virtues which make Indian grammar a model for us. The other is completeness. Pāṇini gives the formation of every inflected, compounded, or derived word, with an exact statement of the sound-variations (including accent) and of the meaning. An English grammar on the same lines would provide accurately and completely for all such sets as the regular *kind*: *kindness* and the irregular *broad*: *breadth* (*long*: *length*, etc.), *high*: *height*, *young*: *youth*, *hot*: *heat*, *cold*: *cold*; it would provide for all the formal and semantic features of sets like *nation*: *national*: *nationality*, *hospital*: *hospitable*: *hospitality*; it would register the semantic peculiarities and the possibilities of formation of compounds like *red-bird* (a kind of bird), *red-head* (not a kind of head, but a person who has a red head), *blackhead*, *deadhead*, *bulkhead*, and so on; it would provide for the formation of adverbs like *along*, *away*, *ahead*, *aloft*, etc. For no language of the past have we a record comparable to Pāṇini's record of his mother-tongue, nor is it likely that any language spoken today will be so perfectly recorded.

Although Pāṇini's work has a history behind it, it is the achievement of one man. Indian grammar originated in unsystematic rules concerning the language of the Vedas, doubtless also in chance aphorisms which served as guides to correct upper-class speech (e. g.: *Does not* contracts to *doesn't*, *do not* to *don't*). Pāṇini's guiding principles of completeness, relevance, and brevity, and his methods of carrying out these principles, were the product of generations of scholarship. His one great fault, the extreme complication of the mechanism which determines the scope and order in which the rules are to be applied—this flaw, to whose mending lifetimes of labor have been devoted without final success—has at least the value of proving that the treatise is a unit, that Pāṇini (defined as the creator of this ingenious unity) was a man who really lived. His wording has been admirably preserved, doubtless because the text is a sacred one. Its nature is such that any additions by later hands will appear as foreign bodies. To recognize them is important not only because Pāṇini's grammar is one of the greatest monuments of man's intelligence, and not only because of the value of an accurate description of an early Indo-European colloquial language, but also because the great literature which uses classical Sanskrit as its medium was written by men who learned this language from whatever version and interpretation of Pāṇini's text was current in their time and place. Some accretions are very early. Both Patañjali and his predecessor

Kātyāyana read at the very beginning of the grammar (1. 1. 6) a rule which does not fit into the Pāṇinian system and is probably marked as spurious by the completing word 'and' of the preceding rule, which closes a set of ditto marks. The rules 1. 2. 53-7, whose spuriousness is evident,<sup>19</sup> do not appear in Candra's grammar (though he has a sentence which approximates the first of them), but they are commented in the *Kācīkā* (seventh century)—as Liebich points out in the pamphlet under review (p. 48). In the introduction of our pamphlet Liebich shows the necessity, for this problem, of collecting the citations in Patañjali, whose work, again, is safeguarded by its very complication.<sup>20</sup>

The date of Pāṇini is one of the major problems of Indic chronology. Among the discussions are Th. Goldstücker's moody and fascinating book, *Pāṇini; his place in Sanskrit literature*,<sup>21</sup> Liebich's *Pāṇini* (with summary of older discussions), and Belvalkar's *Account*, pp. 13 ff. Pāṇini tells us (4. 1. 49) that the word *yavana* 'Greek' forms the irregular feminine *yavanānī*; Kātyāyana adds that this latter has also a semantic irregularity: it means Greek writing. Was this an oversight of Pāṇini's, or had the meaning changed after his time? Relatively, Pāṇini is contemporary with the old Sūtras and Brāhmaṇas (cf. above) or but little later than these earliest records of Indo-European prose. He is certainly some generations earlier than Patañjali, whose treatise is one of the few datable works of older Sanskrit literature. Patañjali gives as illustration of an event that occurred during his lifetime the sentences 'The Greek besieged Sāketa' and 'The Greek besieged the Mādhyamikas', which can refer only to Menandros, as Goldstücker saw,<sup>22</sup> and he refers to certain kings and dynasties in ways which enabled R. K. Bhandarkar to say with certainty that Patañjali wrote part of his book between 144 and 142 B.C.<sup>23</sup> Accounts of Chinese Buddhist pilgrims are used to date some of the later texts.

Indian grammar is not historical. It does not compete with such a work as the great historical Sanskrit grammar which Jakob Wackernagel is writing.<sup>24</sup> Three Europeans take rank beside the great Hindu authori-

<sup>19</sup> Cf. Böhtlingk's ed., pp. 18 and 477.

<sup>20</sup> See also Böhtlingk's ed, p. xix. On an accretion and transposition in the Gaṇapāṭha, see JAOS 47. 61.

<sup>21</sup> Published first as the introduction to a (never completed) photolithographic ed. of a MS of the *Mahābhāṣya*, London 1860; separately, London 1861; reprint, Allahabad 1914.

<sup>22</sup> *Panini*, pp. 176 ff.

<sup>23</sup> *Indian Antiquary* 1. 299 (1872); other references in Belvalkar's *Account* 32.

<sup>24</sup> *Altindische Grammatik*, 1, Göttingen 1896; 2. 1, 1905; 3.1, 1929; Wackernagel throughout makes use of the Indian doctrine.



ties on Pāṇinian descriptive Sanskrit grammar: Franz Kielhorn, Otto Böhtlingk (through his indices), and, among the living, Bruno Liebich.

LEONARD BLOOMFIELD

ΑΛΚΑΙΟΥ ΜΕΛΗ; the fragments of the lyrical poems of Alcaeus. Pp. xciv + 75. Edited by EDGAR LOBEL. Oxford: Clarendon Press, 1927.

The companion edition of Sappho was reviewed in *LANGUAGE* 2.137-46 (1926), and a reference to that review may be substituted for a detailed description of this work<sup>1</sup> and of its editor's methods of investigation.

Like its predecessor this volume will interest the linguist in two ways.

(1) It gathers the widely scattered material and presents it in the most authoritative form, so that the text established by Mr. Lobel must remain (pending the discovery of new evidence) the basis for all future work on the Lesbian dialect of the poet's time. To illustrate one way in which it will affect the history of the dialect. Not long ago Lesbian iteratives in -σκει were being welcomed as a new find;<sup>2</sup> and all the more warmly, because the discovery would have important bearing on the analysis of the Homeric language. Of these iteratives the two examples of ἦσκε now disappear—'mera sunt somnia' Mr. Lobel says of them;<sup>3</sup> and the sole survivor πατάγεσκε (50<sub>10</sub>), must certainly in view of its isolation<sup>4</sup> be attributed to Ionic influence.

(2) There is again an exceedingly interesting Introduction that deals with the language of the Lesbian poets. It is divided into three parts of which the first (ix-xviii) restates in more systematic form the linguistic evidence for discriminating between the normal and the abnormal poems of Sappho. The need for such discrimination had been established by Mr. Lobel in his previous volume beyond all doubt, but it is convenient to have the evidence reassembled, and besides it paves the way for Part II (xviii-lxxiii), a comparison of the linguistic usage of

<sup>1</sup> The system of numbering may be noted. First come the book texts arranged according to the papyri, each papyrus being assigned a letter and each poem within it a number. Then come the quotations that can be assigned to books, then those incerti libri. There is also a consecutive numbering of all fragments. That a concordance with Diehl was not added seems regrettable.

<sup>2</sup> Cf. K. Meister, *Hom. Kunstspr.* 84 (cf. 109), also Kretschmer *Glotta* 8. 258 (1917).

<sup>3</sup> At frag. 168. And rightly: 54<sub>12</sub> was corrected in the papyrus itself to read *ἢ κε ἦς δνεκτον*, and 54<sub>3</sub>, being obviously a sentence of the same type, must be *ἢ κε ἦς κ' δνεκτον*.

<sup>4</sup> Even before, it had been so treated by Bechtel, *Gr. Dial.* 1.85.



Alcaeus with that of Sappho in her normal poems. The third part (lxiv-xciv) is a discussion of the employment of the definite article in the fragments of both poets.

As a whole the Introduction is a very pretty piece of descriptive grammar. One is, indeed, surprised to see how much information has been elicited from material which, in its fragmentary condition, seemed most unpromising; and it makes one regret that Mr. Lobel's primary interests are, as he says, in text criticism and not in linguistics. Perhaps the prettiest item is the description (completely documented) of the main tendencies and frequent cross-currents in the use of the article. It is certainly the largest and contributes much both to the establishment and interpretation of the text.<sup>5</sup> I must, however, mention also the observation that Lesbian ordinarily does not express the third person (singular or plural) of the present indicative of the copula in 'nominal phrases'. When it is expressed, not forms of *ἔμμεναι* but *πέλεται* and *πέλονται* are used, while of the latter verb no other form except *ἔπλετο* can be cited. A very interesting case of supplementation. A similar condition (with its Homeric parallel) is noted for the apparent synonyms *ἐλπώρα*, *ἐλπις*: the former being used only in the phrase 'there is hope', while the latter is excluded from that construction. The attempt to discriminate between *ἀέρρω* and *ἐπαίρω* rests (as Mr. Lobel notes) on very slight material, but it leads into the interesting observation that the text of Herodotus has *αἰίρω*, *ἀνταίρωμαι*, but *ἀπαίρω*, *ἐξαίρω*, *ἐπαίρω*; which, however, looks more as if due to Attic influence upon the tradition<sup>6</sup> than to the practice of the author.

For the difference in meaning of the different numbers of *σῆθος* Mr. Lobel accepts, too quickly—I think, the teaching of our dictionaries. As far as I can see the word means always in Homer a part of the body; but the fact that Homeric psychology localizes in this part of the body various immaterial forces (*θυμός*, *μένος*, etc.) and their functions, while later psychology discards such theories, tempts to a different translation 'animus hominis' (Ebeling), or to an explaining of a closer translation as

<sup>5</sup> Mr. Lobel has the habit of stating clearly what he means, but in § 25 something seems to have gone wrong. I should expect his rules to read: ' (i) A noun on which depends a proper noun in the genitive is not as a rule accompanied by the definite article; ' and ' (ii) . . . a noun on which depends the genitive of a noun (or pronoun) denoting an animate being is not accompanied by the article '.

<sup>6</sup> In Homer *αἰέρω* is frequent, compds. rare; this may have given the uncompounded form greater power of resistance. *ἀνταίρωμαι* in Thuc. may well be due to Ionic influence: Liddell and Scott cite other examples of the middle only from late authors.

'metaphorical' (Liddell and Scott), in which case our English speech habits force us to avoid 'chest' and speak of 'breast' or 'heart'.<sup>7</sup> That explains why the alleged change of meaning is confined not to the plural (as these lexicographers say) but to the dative plural. The problem should in reality be stated: why does Homer in making such localizations use ἐν στήθεσσι,<sup>8</sup> but never ἐν στήθει. An attempt to solve it would lead too far from the present purpose,<sup>9</sup> but I should note that all the Lesbian examples adduced for the plural are of ἐν στήθεσιν.

Nor can I see that in φρένες the singular differs from the plural by having an emotional connotation. Rather I should notice that the only form of the singular—and it occurs four or five times—is φρένα. Now Witte has shown<sup>10</sup> that in dactylic poetry φρένας φρένα is a useful doublet, and that the Homeric development stops almost exactly at that point. A similar development, I should believe, has taken place in earlier Lesbian poetry, and has given this doublet to Sappho and Alcaeus as part of their poetical conventions.

At this point it becomes necessary to discuss a question of general linguistic principles that underlies the whole of the second part of the Introduction. Mr. Lobel opens it with the statement: 'A vernacular or spoken, as contrasted with a literary, dialect has in principle one way and no more of expressing one meaning.' Similarly Bloomfield<sup>11</sup> speaks

<sup>7</sup> Note the ways we would deal with 'sunrise', 'sunset', or 'he got it into his head that—'. After behaviorism has won out, the last will be explained to school boys as 'synecdoche'.

<sup>8</sup> Once (T 20) ἐν στήθεσι, which (rather superfluously) shows that it is not a question of metre. Note also that στένον cannot be employed in such phrases. N 282 is the only approximation, and its difference is easily appreciated.

<sup>9</sup> I suspect that the word once meant 'breast', στήθος and στήθεα being used of a single individual according to circumstances. Some support for the idea might be gained from the etymology (cf. Boisacq) if it were clearer. Since στήθος, στήθεος, στήθεϊ are all metrically convenient, and the closest congeners (στένον, νῶτον, μετάφρενον) include no word that would be naturally plural, it is difficult to see why a 'poetic plural' should have developed. On the other hand, if my suspicion is correct, in phrases like ἰδεῖν, ἀπομοργύνειν στήθεα the meaning is practically equivalent to the 'whole front of the thorax', and in that sense στήθος can have been introduced under the influence of the words just mentioned. Then synonyms for 'breast' may have supplanted στήθος in its earlier meaning, apart perhaps from some set phrases.

<sup>10</sup> *Sing. u. Plur.* 20-1. Witte misses, however, the precise nature of the metrical difficulty. As long as mute and liquid 'make position', φρένας before consonant is normally impossible. That Homeric poets were not seeking dactyls at all costs has been shown by Meister.

<sup>11</sup> *LANGUAGE* 2.157 (1926). I use later the terminology of this article.

of the sememes as standing 'in one-to-one correspondence with the morphemes'. In the next sentence, however, Mr. Lobel posits 'exceptions' and later draws up quite a list of 'real or vernacular doublets' for Lesbos. My own position would be somewhat different: that, while such a correspondence may be admitted as a theoretical postulate, the actual conditions of life are always too complicated to permit us to hope to encounter a community with its speech in this condition; and that the difference in this respect between a vernacular and a literary dialect is quantitative rather than qualitative.

In a spoken language phonetic alternation produces variations like Sanskrit *tat, tad, tan*, etc., English [wið], [wi] that are usually called sentence doublets. Mr. Lobel, however, prefers in similar cases (ἀπὸ: ἄπ, διὰ: ζά) to speak<sup>12</sup> of a 'partition of functions', and recognizes that this may happen in a vernacular, where also such an automatic phonetic alternation may later be disturbed, as in English [ov], [o], Lesbian *περί, πέρ, πέρρ*, by analogic changes. All cases of analogic change<sup>13</sup> lead, indeed, first to the existence of doublets; and Mr. Lobel recognizes *ἔχεις: ἔχεισθα, λύπης: φιλησθα, πῶ: σύμπωθι, ἔδσαν: ἔδωκαν* for the Lesbian vernacular.<sup>14</sup> Semantic changes, too, in my opinion, probably have the same effect; although the position taken by Mr. Lobel and others that there are no perfect synonyms (the appearance of such being due only to our failure to make fine enough discriminations) is of course irrefutable.

Such considerations would go far towards breaking down a distinction in principle between a vernacular and a literary dialect. Over and above them is to be set the fact that even under the least complex conditions there is an omnipresent borrowing from the speech of others and from the speech of earlier generations. Writing facilitates, but is by no means essential for the process.<sup>15</sup> This borrowing, too, produces doublets, and so further weakens the distinction attempted.

<sup>12</sup> His phrase does not seem very happy.

<sup>13</sup> Obviously here meant not to include cases of analogic creation.

<sup>14</sup> Particularly interesting is the acceptance of *ἔδσαν* as 'a genuine Lesbian form'. The argument that it occurs in a place where *ἔδωκαν* (supported sufficiently by Sappho's *περεθήκας*) could have been used, is perfectly valid for the exclusion of voluntary borrowing from Ionic by the poet. But as it is most improbable that *-σαν* is anything except Attic-Ionic, I should prefer to regard the Alexandrian text as here corrupt. The form supplanted is not apt to have been one so familiar as *ἔδωκαν* but *\*ἔδοαν*, cf. Boeot. *ἀνέθεαν*, Arc. *συνέθεαν*, Cypr. *κατέδιγαν*, etc. We may then note that *ἔδωκαν* is used only where metrically convenient.

<sup>15</sup> Cf. Hirt, *Idg. Gram.* 1. 123-4; Bloomfield, 'Literate and Illiterate Speech' (observations made among the Menomini) *Am. Speech* 2. 432-9 (1927).

Consequently I should regard the languages of Sappho and Alcaeus as based not directly on the vernacular of Lesbos, but on the language of its earlier poets. Most of the doublets discussed by Mr. Lobel could in themselves be ascribed to either of these sources; but this is not true of the mythic names in *-eus* (Νήρηος: Πήλεος: Ἀχιλλεῖα, Νηρηίδες: Νηρηίδων).<sup>16</sup> Beside them can be placed also: the doublet *φρένας: φρένα* for which the metrical origin is clear;<sup>17</sup> forms with and without the *ν* *ἐφελκυστικόν*, which the oldest inscriptions (Bechtel 1.46) do not employ; the group of forms *φοι*, etc., retaining antevocalic [w-] after its loss everywhere else, which is best regarded as a poetic archaism.

Disagreement with Mr. Lobel on this point, however, does not seem to me to have the far-reaching consequences that might be supposed in view of the prominent place he has assigned to this theory. It is, in my eyes at least, an approach to the building he has erected, rather than a part of its substructure; and so, while I should describe differently the element which he terms 'genuine Lesbian', I can assent to much of his following argument.

It begins by setting off the doublets that may be ascribed to the Lesbian dialect itself, and the cases which seem, but, on closer examination, prove not to be doublets.<sup>18</sup> Attention is then directed to the cases in which a doublet is confined to the usage of only one of the poets. Frequent is the situation that may be represented by the formula—Alcaeus: Sappho:: AA': A. The examples from vocabulary are: γᾶ γαῖα: γᾶ, δῶμος δῶμα: δῶμος, πάρθενος παρθενίκα: πάρθενος, σός τέος: σός, πύκνος πίκινος: πύκνος, μόλθακος μάλακος: μόλθακος. Alcaeus also uses both *ὥς τάχιστα* and *ὅττι τάχιστα*; neither is found in the fragments of Sappho, but it is quite likely that she employed only one of these phrases. Different forms of the same word: ὕδωρ ὕδωρ: ὕδωρ, μέσσος μέσος (etc.): μέσσος, ὄν ὄνν: ὄν, and ἤλπετο ἑάνασσε: ἤλπ[ (for *ἔειπε* at Sappho ε 3<sub>3</sub> is regarded as a most uncertain reading). In inflexion the relation is obvious in the forms of the genitive singular *-ω -οιο: -ω* and *-α -αο: -α*; but the datives in *-εσσι* offer more of a problem. The fragmentary evidence makes it clear that analogy has not carried this ending all through the language, but leaves it uncertain exactly how far it has gone. Mr. Lobel thinks that nouns with monosyllabic nomina-

<sup>16</sup> Debrunner's assumption (*Antidoron* 31–40) of metrical shortening seems unsatisfactory. I hope to return to the question.

<sup>17</sup> Even if these forms be distinguishable in meaning, that can be only a later development.

<sup>18</sup> The most interesting examples of both have already been cited.



tives are exempt; to me it seems more probable that those unaffected are the vowel-stems (including nasal and liquid vowels), and the *εσ*-stems that have come to look like vowel stems, and a few frequently used words *χέρσι*, *παῖσι* 'children', *παῖσι* 'all'.<sup>19</sup> I should expect *ναῖσι* and *πόσσι* (both found in Sappho's abnormal poems) but am not greatly surprised to find *νάεσσι* and *πόδεσσι*. All four forms occur in the earliest parts of the Iliad, and most probably all were current in Lesbos. *ἄμμεσιν*, too, from its formation<sup>20</sup> must be Lesbian, and the fragmentary nature of our evidence should be held responsible for the peculiar distribution of the apparent facts: in Alcaeus *ἄμμιν* : *ἄμμεσιν* :: 7 : 1, while in Sappho *ἄμμιν* is extant but five times, so that we probably have one of the cases represented by the formula AA' : A(A'). I should look upon *νάεσσι* (once in Alcaeus) and *πόδεσσι* (once, incerti auctoris) in similar fashion.

Two other apparent examples, *λαθικάδεα* (not *λαθικάδην*) 'Ἄρηι (not 'Ἀρενι) Mr. Lobel rightly regards as corrupt. But he can cite still others: *ἐοίκότες* and *βεβῶως* occur in Alcaeus beside *ἐκγεγόνων*, *λελάθων*, *περίγγων*; for Sappho no perfect participle can be quoted, but *τεθνάκην* leaves little room for doubt as to her usage. *ποτέονται* seems Ionic; the one example in Alcaeus contrasts strongly with the Lesbian conjugation of such verbs. The alternation of *-σσ-* : *-σ-* in certain verbs does not take place irregularly: always *-σσα-* (and by analogy to such forms *-σσε*); but always *-σε-*, *-σο-*. The fact seems curious, but there are a dozen examples to confirm it, so that probably we are not here being misled by the fragmentary condition of the evidence. Two forms in Alcaeus are exceptional: *χαλάσσομεν* (but *χαλάσομεν* would have been metrically impossible), and *ῥλεσαν*.

Mr. Lobel then discusses the reduction before vowels of the *i*-diphthongs, reaching in general the conclusion: *-ει-* is not affected; *-οι-* and *-αι-* are reduced except in optatives<sup>21</sup> and in dissyllables that are not under the analogy of polysyllables. Then *τέοντος* cannot contain a different ablaut grade, but is dissimilated<sup>22</sup> from *τόουτος* from *τοίουτος* (*τοιαύτας* is attested Alcaeus 63<sub>13</sub>), while *τεαύτα* is analogic. Alcaeus has some divergent forms, notably *γαῖα*.

<sup>19</sup> The last may be posited because of inscriptional *Παισικρίοντος*. I may note that *παλδεσσι* is limited to the Odyssey.

<sup>20</sup> To some extent (since *ἄμμε* must at one time have functioned as nominative) it supports Wackernagel's idea that *λύκοι* : *λύκοισι*, etc. is the force that produces the datives in *-εσσι*. It fell in line with *στήθεσιν*, *ὀνείδεσιν*, *ῥρεσι*, and all changed *\*ανδροσι* to *ἄνδρεσι*.

<sup>21</sup> *λαχόν* (Sappho a 4<sub>2</sub> App.) is an emendation.

<sup>22</sup> An explanation considered too by Kretschmer, *Glotta* 8. 257. The form *τέαυτα* has vanished; *τέαντ*. [is now read in 21].



Finally Alcaeus alone has 'epic correption', and synizesis of  $\epsilon\epsilon$ . The latter however is so rare in his works that Mr. Lobel is not prepared to deny the possibility that the absence of certain examples in Sappho may be purely accidental.

Examples of the type AA': A are then plentiful—even after possible deductions are made. That these as a whole cannot be ascribed to gaps in our evidence, such as would be symbolized AA': A(A') is shown by the fact that examples of the type A: AA' do not occur. There are some apparent cases in quotations, but Mr. Lobel deals successfully with them.<sup>23</sup>

There are other instances in which our evidence is incomplete, but they prove on examination to be cases coming from AA': A rather than from AA': AA'. As such can be named: (1) examples of AA':-, τῶνδε τῶνδεων, πόλιος πολῆος, περάτων πειράτων, ἀβάσομεν φαρξώμεθα; (2) those of A': A: πολιάταν : πολίταν, θάσσει : θαασ[σ]; (3) those of A':-, there being in Alcaeus a number of seemingly extraneous forms such as ἡδέ, αὐτάρ, πατάγεσκε, etc., while nothing of the sort can be adduced from Sappho.<sup>24</sup>

The sketch of Mr. Lobel's argument has necessarily been much condensed, and naturally I have given more space to points of disagreement than to those on which we are agreed. I wish therefore to add that Mr. Lobel's main contention—the surprising uniformity of Sappho's language, the greater freedom of Alcaeus both in adopting foreign forms and in the handling of Lesbian itself—seems to me fully established. I am at a loss to express adequately my admiration of the ingenuity and perseverance with which he has made his analysis, and perhaps cannot do better than close with the quotation he has placed at the beginning of his Introduction:

It's a right husky rat that'll open a closed door.—*American Authoress*

GEORGE M. BOLLING

**La Phonétique Latine.** (Publications de la Faculté des Lettres de l' Université de Strasbourg.) Pp. 69. By A. C. Juret. Paris: Société d'Édition 'Les Belles Lettres', 1929.

<sup>23</sup> Except that αἶα is to be explained in accordance with Bechtel 1. 52. Even so, it is not a 'doublet' to αἶωσ, but a more or less clearly distinguished synonym.

<sup>24</sup> The argument ends here, but there is added an interesting section on the 'Handling of metrically intractable forms in Sappho and Alcaeus.'

This volume is intended as an introduction to Latin phonetics, which is quite properly divided (2) into 'la description de l'état de la prononciation latine à l'époque qui nous est le mieux connue, de Plaute à Tacite', and 'la description et l'explication des changements que nous pouvons constater dans la prononciation du latin depuis ses origines'. Following this, the first part (3-16) is devoted to a description of the pronunciation of classical Latin, and the second part (17-57) to the evolution of the pronunciation. The volume concludes with an index of words (59-63) and a table of contents (64-69).

Professor Juret is well known for his originality, which is everywhere manifest in this volume. For example, in his treatment of the history of the explosives (18-25), better called stops, he deals with them all when single in the initial position, then when single in the medial position, next in groups (i.e., when preceded or followed by another consonant) which remain without change, then in groups which undergo change, finally in positions where the quality of a neighboring vowel causes change in the consonants. Other sounds are treated similarly, then comes 'Influence de l'unité de mot et de la syllabe' (metathesis, dissimilation et haplology, assimilation; 32-4), and 'Influence de la position en fin de mot sur les consonnes' (35-6).

Such arrangement has certain theoretical advantages, but it leads to much duplication of statement and of material; it is often more useful to the student to have the history of a sound in all its positions, with examples, given in one place, than to have it divided and scattered around in several places in the manual. It is confusing, to say the least; and as this volume is one of the series *Initiation et Méthodes*, intended to initiate the students in the study of the subject, it is especially unfortunate. The definitions of the sounds also (e.g., 5.2-7, 6.32-9, 7.16-20) are in highly technical language, which, however correct from the scientific standpoint, is unduly difficult for the beginner. I note also that the macron is often omitted over long vowels of Latin words, and that the accents and breathings on Greek words are frequently misprinted. On page 28 inf., it. *mazgóti* is misprinted for lit. *mazgóti*.

Professor Juret has quite naturally embodied in this volume his personal views upon the development of the Latin sounds; every scholar would do the same. But when those views are not as yet generally accepted, it is desirable to give some indication of this fact in a footnote or otherwise, for the student's benefit. Juret gives here his interpretation of the phenomena of unaccented syllables which he put forth in his *Dominance et Résistance dans la Phonétique Latine* (see my review, CW

8.22-3), and those upon the development of medial *sw* and medial *dh* (22; 19, 33), without suggesting that they are other than universally accepted views. The student should not be misled into the belief that all the problems of phonology are solved with objective certainty.

I take up now a few selected passages for comment, referring by page and line. 6.21 The writing *ou* for *ū* toward the end of the republican period is said to occur 'souvent'; it is really very rare. 6.26 The *i longa*, to mark length, is said to be used 'parfois'; it is actually very common. 9.30 'Longtemps, -uv- s'est écrit -v-': it would be less misleading to say that it was written -u-. 11.1 The description which is given of the sound indicated by an intervocalic doubled stop is that of two stops, not of a single sound with a long stoppage of the breath, as it should be. 12.8 On the use of the iambic shortening in the comic poets, cf. my exposition in *Rev. internat. de l'Enseignement* 45.328-9 and *The Class. Weekly* (to appear in vol. 23). 14.23 Juret, like other French scholars, believes that Latin never had an accent of stress or energy; cf. rather Abbott, *Class. Phil.* 2.444-60 and my own articles *TAPA* 51.19-29 and *Rev. des Études Lat.* 3.204-14.

18.6 A single consonant, when initial antevocalic, 'étant en position très forte, . . . ne change pas, sauf en des cas où l'articulation est faible, parce que compliquée.' But in other languages there are extensive changes of such consonants: initial stops in Germanic, under Grimm's Law; the Celtic loss of *p*-; the assibilation of the original palatal stops in the *satem* languages; the development of a new set of palatals in Indo-Iranian; the Balto-Slavonic loss of the aspiration of stops; the Greek splitting of the labio-velar stops into three sets; etc. The same comment holds as to the 'strong position' of single intervocalic stops, 19.28.

19.7 *Pellō* is said to come from *\*peldō* because of *pulsus* from *\*peld-tos*. But the perfect *pepulī* and the older participle *\*pultus*, testified to by Plautine *pultāre*, show that the -s- of *pulsus* is merely an analogical extension from roots which ended in a dental. 25.13 On words of the type *obicio*, cf. *TAPA* 43. 38-40. 27.10 *Pessimus* from *\*petsemos* from *\*ped-semos* gives a wrong picture of the development; it must be from *\*pessemos* from *\*pet-tḗmos* from *\*ped-tḗmos*. 27.24 *Surripīō* and *surgō* do not have -rr- from -br- (cf. -br- in *abripīō*), but have the prefix in the form *sup-*. 33.28 'Une *r* précédente n'empêche pas, naturellement, le rhotacisme de -s-': why *naturellement*? Preceding sounds do cause dissimilation, as in *nātūrālis*, and loss, as in *praestīgiae*. 36.10 The statement, as made, obscures the fact that *stābat* contains the primary personal ending only by analogical extension, since the second-

ary ending is Italic *-d*. 39.29 The relative openness of *ĩ ũ* as compared with *ī ū* is here admitted for the time of Quintilian and later, but at 5.19 it is denied for 'l'époque classique'. This seems a needless complication. 46.34 Juret mentions with disapproval the theory of a primitive Italic initial accent of energy, but his treatment of the vowels fails to give a motivation for the changes which affected short vowels and diphthongs in all but initial syllables.

There is a place for such a handbook alongside Professor Niedermann's; but whether or not Professor Juret's is satisfactory will depend on the extent of the user's acceptance of the author's original theories. Personally, I am not as yet inclined to accept them in any large degree.

ROLAND G. KENT

**Practical Grammar of the Serbo-Croatian Language.** Pp. XIV + 217. By JOHN DYNELEY PRINCE. Belgrade: National Press of the Kingdom of the Serbs, Croats, and Slovenes, 1929.

The appearance of a grammar prepared by the accredited diplomatic representative of one country to another and printed by the National Press of that country is a most unusual occurrence. We must note further that this grammar is dedicated to His Majesty Alexander the First with His gracious permission.

The high auspices under which this grammar appeared certainly do not detract from the great value which it has for those who wish to secure a practical knowledge of the Serbo-Croatian language. There are so few books available for this purpose that the addition of another well-arranged and discriminating volume is an occasion of real importance. When we think of the continual sifting and revision that our leading grammars of French and German have undergone, we will realize that the preparation of an entirely new grammar is a work of real difficulty. That difficulty is increased by the fact that the language itself is only now approaching a state of general unification. The differences between Serb and Croatian are really insignificant, but the extensive studies that have been made have tended to exploit minor differences. They have in the question of the four accents studied and classified until the refinements required are rarely found in the speech of the educated classes.

Dr. Prince has endeavored to present an elementary grammar of the language as it is spoken to-day in Belgrade and Zagreb. He has not aimed to trace the historical explanation for many of the phenomena, but has given the results as they are existing to-day. The work will be of great value for those who wish to learn the language, but it will also

be extremely useful for those students who already know one or more Slavonic languages and wish to have the most important features of Serbo-Croatian available for a rapid review of the grammar and structure of the speech. We can only welcome the appearance of the volume and hope that it will have the success which it deserves.

CLARENCE A. MANNING



## NOTES AND PERSONALIA

THE AMERICAN COUNCIL OF LEARNED SOCIETIES, after the Conference on a Linguistic Atlas of the United States and Canada held at New Haven on August 2 and 3, has appointed a Committee charged with preparing a budgeted plan for the proposed Atlas. The plan of the Committee will, when completed, be submitted to the Council for consideration. In the event of its adoption by the Council and of the success of that body in securing the necessary funds for carrying out the enterprise, the Council will appoint a Committee to direct the execution of the undertaking.

The Committee on preparing the budgeted plan consists of the following members:

Hans Kurath, Professor of German and Linguistics, Ohio State University; *chairman*.

Leonard Bloomfield, Professor of Germanic Philology, University of Chicago; delegate of the Linguistic Society of America to the American Council of Learned Societies.

Charles H. Grandgent, Professor of Romance Languages, Harvard University; President of the Linguistic Society of America.

Miles L. Hanley, Assistant Professor of English, University of Wisconsin; Treasurer of the American Dialect Society.

Marcus L. Hansen, Associate Professor of History, University of Illinois; formerly Research Associate for the ACLS Committee on National Stocks in the Population of the United States.

John S. Kenyon, Professor of English, Hiram College.

George P. Krapp, Professor of English, Columbia University.

Edward Prokosch, Professor of Germanic Languages, Yale University.

G. Oscar Russell, Director of the phonetics laboratories, Ohio State University.

ROBERT BELLE BURKE has resigned the post of Dean of the College of the University of Pennsylvania and will devote himself to his teaching duties as Professor of Latin and to research in Mediaeval Latin.

HENRY S. GEHMAN, of the Philadelphia High Schools, has gone to Princeton University as Instructor in Semitic Languages.

SELMA S. KÖNIG, of Carthage College, is spending a year's leave of absence in graduate study at the University of Wisconsin.

RALPH MARCUS, of the Jewish Institute of Religion in New York City, has been promoted to an Assistant Professorship in Hellenistic Judaism.

WALTER PETERSEN, of the University of Florida, is taking a year's leave of absence from teaching duties.

HORACE I. POLEMAN has left the Pomfret School, to devote himself to graduate studies in Latin and Comparative Linguistics at the University of Pennsylvania.

EDWIN C. ROEDDER, until recently at the University of Wisconsin, has gone to the College of the City of New York as Professor of Germanic Languages and Literature.

GEORGE WILLIAM SMALL, formerly of the University of Washington, has gone to the University of Maine as Associate Professor of English. His treatise on *The Germanic Case of Comparison* will be shortly issued by the LINGUISTIC SOCIETY as *Language Monograph No. 4*, as a publication of 1929.

MISS PAULINE TURNBULL, of the University of Richmond, has received a leave of absence and is devoting herself to graduate studies in Latin at the University of Pennsylvania. Miss Turnbull has received for this year a University Scholarship from the University of Pennsylvania as well as a Fellowship from the Pi Beta Phi sorority.

THE FOLLOWING NEW MEMBERS have been received into the LINGUISTIC SOCIETY OF AMERICA, subsequent to the last published list, and up to September 24:

Prof. Clara J. Allison, 1010 Washtenaw Av., Ypsilanti, Mich. (Latin, Michigan State Normal College)

- Prof. Clive H. Carruthers, McGill Univ., Montreal, Canada. (Classical Philology)
- Mr. Walter J. Eickmann, 446 West 21st St., West New York, N. J. (Latin and English, Memorial High School, West New York)
- Prof. Miles L. Hanley, Univ. of Wisconsin, Madison, Wisc. (English)
- Prof. Jess H. Jackson, College of William and Mary, Williamsburg, Va. (English Univ. of Texas)
- Prof. John S. Kenyon, Hiram College, Hiram, Ohio. (English)
- C. K. Ogden, Esq., Royal Societies Club, St. James's St., London S. W.1, England.
- Miss Gertrude van Adestine, 150 Atkinson Av., Detroit, Mich. (Supervising Principal of the Detroit Day School for the Deaf)

## BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

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*English Studies*: 11. 129-60 (1929).

*Gnomon*; kritische Zeitschrift für die gesamte klassische Altertumswissenschaft 5. 353-464; Bibliogr. Beilage 20-31 (1929).

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**Le Muséon; Revue d' Études Orientales** 42. 1-128 (1929).

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